# Annual Report-2019-2020

## ABOUT INSTITUTE OF SCIENCE & TECHNOLOGY:

Institute of Science & Technology is one of the autonomous academic units of Jawaharlal Nehru Technological University Hyderabad and located within the JNTUH campus. The Institute had been established in 1989 with the vision of being recognized as a good teaching as well as research institute and imparting technical education with strong domain of knowledge, contemporary skills and positive attitude towards holistic growth of young minds.

Institute of Science & Technology offers post graduate and doctoral programmes in various fields of Science and Technology. The ten centers of IST, ***Centre for Bio-Technology, Centre for Chemical Sciences and Technology, Centre for Environment, Centre for Nano Sciences and Technology, Centre for Pharmaceutical Sciences, Centre for Spatial Information Technology, Centre for Water Resources, Centre for Earth, Atmosphere, Weather Modification Technologies, Centre for Alternative Energy Options, Centre for Innovative Research***, strive with the mission of providing quality education, student centered teaching-learning processes and state of the art infrastructure for professional aspirants. Highly qualified and experienced faculty, excellent technical staff, enthusiastic student community and effective administration has contributed to the academic and scientific excellence of the Institute.

IST has attained autonomous status and recognized as a well performing institution and has been sanctioned a grant of Rs. 12 crores from the Technical Education Quality Improvement Programme of the World Bank, TEQIP-I and 12.5 crores from TEQIP-II for overall development which includes up-gradation of infrastructural facilities, establishment of newer laboratories, faculty development, training and research activities in thrust areas. The institute is also shortlisted as mentor Institute for TEQIP III project

### Vision and mission

### Vision

Imparting technical education that encourages Independent thinking, develops strong domain of knowledge, hones contemporary skills and Positive attitude towards holistic growth of young minds

### Mission

- Student-centered Teaching-learning processes and a stimulating R&D environment.
- Providing Quality Education and ethics to students.
- State-of-art Infrastructure for professional aspirants.

### ABOUT JNTUH(information regarding affliating university)

Jawaharlal Nehru Technological University, Hyderabad was established on 2 October 1972 by the Legislature of the State of Andhra Pradesh as the first–ever Technological University in the country. It has been in the forefront during the last forty four years in providing quality technical education of relevance in the State of Andhra Pradesh. After 37 years of relentless service to the society at large, JNT University was restructured into four different Universities namely JNT University Hyderabad, JNT University Anantapur, JNT University Kakinada and JNFAU by the Government of Andhra Pradesh vide Government

Order No. 13, dated 18 August 2008 and the Act of State Legislature No. 30, dated September 2008. From then, this university was re-designated as Jawaharlal Nehru Technological University Hyderabad (JNTUH), Hyderabad. The jurisdiction of the University is entire Telangana State.

The University is situated at Kukatpally, Hyderabad in 89 acre campus. JNTUH has four constituent and four academic units/schools in addition to other administrative functional units. Out of four three constituent engineering colleges are situated in rural areas of Telangana. The constituent co units/schools are as follows:

JNTUH College of Engineering Hyderabad (Autonomous), Kukatpally, Hyderabad (1965)

JNTUH College of Engineering Jagityal, Karimnagar Dist. (2007)

JNTUH College of Engineering Manthani, Karimnagar Dist. (2010)

JNTUH College of Engineering Sultanpur, Medak Dist. (2012)

Institute of Science & Technology, Kukatpally, Hyderabad (1989)

School of Information Technology, Kukatpally, Hyderabad (1989)

School of Management Studies, Kukatpally, Hyderabad (1989)

School of Continuing and Distance Education, Kukatpally, Hyderabad (1983)

The Constituent Engineering Colleges and Units/Schools of JNTUH are offering 21 undergradu B.Tech., 47 Postgraduate programmes in M.Tech., M. Pharmacy, M.Sc., M.B.A. and M.C.A., Integrated Masters Programme in 10 disciplines with M.Tech./M.B.A./M.S. In addition to this, M.S., M.Phil. and various disciplines of Engineering, Technology, Science, Management and Humanities & Social Scie University has Memoranda of Understanding (MoU) with many National and International Organi and Institutions.

The University offers B.Tech. Degree programme in 24 disciplines, B.Pharmacy, M.Tech. Degre disciplines, M. Pharmacy in 11 disciplines, M.C.A., M.B.A, M.A.M, M.T.M, Pharma.D. and Pharma.D. affiliated colleges. In addition to the Constituent Units of the University, JNTUH has 291 Affiliated C 199 Engineering Colleges, 72 Pharmacy Colleges, 20 stand-alone MCA/MBA colleges spread over T over 3.50 lakhs of students on rolls. Thus, JNTUH has become a major University providing quality in the State.

The University is supporting in conduct of the Entrance Tests TS EAMCET-2016 & TS ECET-20 Telangana State Council for Higher Education and recruitment tests for various governmen TSGENCO, Police Recruitment Board etc.

## Governing Body :

| S. No | Name of the Member of BoG | Designation | Position in the BoG |
|---|---|---|---|
| 1 | Prof. P. Jaya Prakash Rao | Former Chairman, State Council of Higher Education, Hyderabad | Chairperson |
| 2 | Dr. S. Chandrasekhar | Director, CSIR-IICT, Hyderabad | Member |
| 3 | Dr. Siva Kumaran | Director, Aurobindo Pharma Ltd | Member |
| 4 | Dr. Rakeshwar Bandichhor | Director, Dr. Reddy's Laboratories Ltd | Member |
| 5 | Sri. B. Gopala Krishna | Dy-. Director(Retd),NRSC, Hyd | Member |
| 6 | Dr. A. D. Rao | Regional Director (Retd),CGWB, Ministry of Water Resources | Member |
| 7 | Dr. K. Yella Reddy | Dean, Faculty of Agriculture Engg., & Technology, ANGRAU, A.P | Member |
| 8 | Dr. M. Anji Reddy | Professor of Environmental Science and Technology., Centre for Environment, IST | Member |
| 9 | Dr. K.Ramamohan Reddy | Professor of Water Resources, IST, OSD to VC and Director I/c Academic Audit Cell, JNTUH | Member |
| 10 | Dr. Yaduvir Singh Chauhan | Principal, Raja Balwant Singh College Agra, U.P | Member |
| 11 | Dr.M. Madhavi Latha | Director, Academic & Planning, JNTUH | Member |
| 12 | Dr.V.Soamidas | Dean, Dayalbagh Educational Institution, Agra | Member |
| 13 | Dr. B. L. Rama | Director, AICTE, New Delhi | Member |
| 14 | Sri. A.Pullaiah | RJD, State Technical Board & SBTE – Nominee | Member |
| 15 | Dr.Bh. Nagabhushan Rao | Mentor, IST-TEQIP-III | Special Invitee |
| 16 | Sri B.Sreenivas | Nodal Officer, TEQIP-SPIU, Department of Technical Education, Hyderabad | Special Invitee |
| 17 | Dr.B.Venkateswara Rao | Professor of Water Resources and Immediate Former Director, IST | Special Invitee |
| 18 | Dr.A.Jaya Shree | Professor of Chemistry, IST | Special Invitee |
| 19 | Dr.T.Vijaya Lakshmi | Associate Professor of Environmental Science & Technology & Coordinator TEQIP-III | Special invitee |
| 20 | Dr. G. Krishna Mohan | Professor of Pharmacy, and Director, IST, JNTUH | Member Secretary |

## Academic council:

The Head of the Institution is the Director. In academic matters, the Heads of the Departments and other faculty members assist the Director.. Technical personnel support laboratories in the different departments. Each department has an office besides the central office of the Director. In the day-to-day office administration, the Deputy Registrar / Asst. Registrar help the Director.

The Institute has attained Autonomous status from JNTUH as well as UGC New Delhi . Important academic decisions are taken by the following committees:

**Academic Council**
It shall be wholly responsible for framing Academic policies, approving regulations, syllabus etc.

| S.No | Member | Designation |
|---|---|---|
| 1. | The Principal of the College | Chairperson |
| 2. | All the Heads of Department in the College | Members |
| 3. | Four teachers of the college representing different levels of teaching staff by rotation on the basis of seniority of service in the college to be nominated by the Principal | Members |
| 4. | Not less than four experts from outside the college representing such areas as industry, R&D Labs, Technical Education to be nominated by the governing body | Members |
| 5. | Three Nominees of the University | Members |
| 6. | A Faculty member nominated by the principal | Member Secretary |

## Members of Academic Council

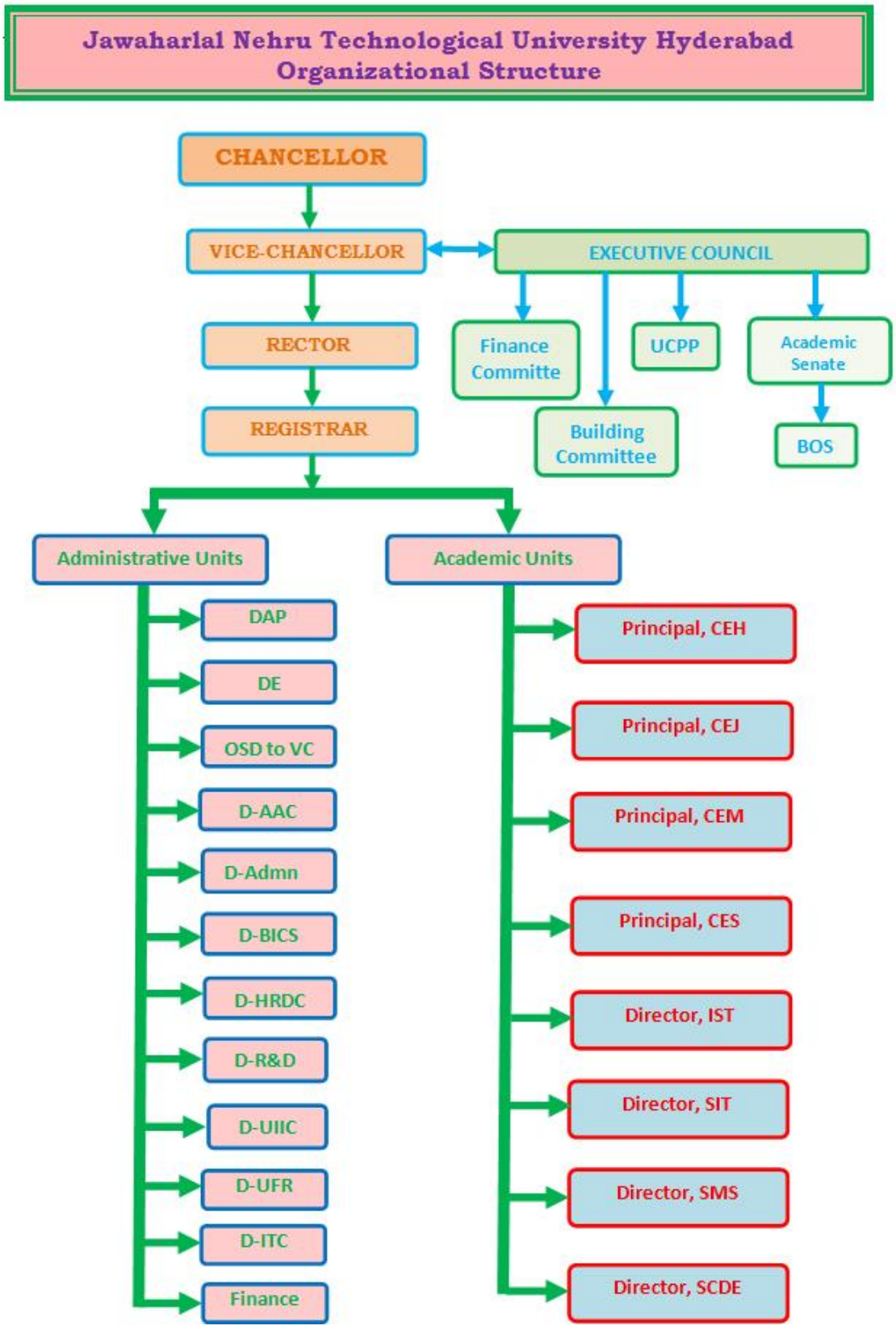
| S. No | Name of the Member of Academic Council | Designation of the Members | Position in Academic Council |
|---|---|---|---|
| 1 | Dr.G.Krishna Mohan | Professor of Pharmacy and Director, IST,JNTUH, Kukatpally, Hyd – 85 | Chairman |
| 2 | Dr.M.Anji Reddy | Professor, CEN, IST, JNTUH, Kukatpally, Hyd – 85. | Member |
| 3 | Dr.A.Jaya Shree | Professor and Head CCST, IST, JNTUH Kukatpally, Hyd – 85 | Member |
| 4 | Dr.M.V.S.S.Giridhar | Professor and Head CWR, IST,JNTUH, Kukatpally, Hyd – 85 | Member |
| 5 | Dr.V.Himabindu | Professor and Head CEN, IST, JNTUH Kukatpally, Hyd – 85 | Member |
| 6 | Dr.K.Venkateswara Rao | Professor and Head CNST, IST, JNTUH Kukatpally, Hyd – 85 | Member |
| 7 | Dr.C.Sarala | Professor,CWR and In-Charge Head CSIT,IST,JNTUH, Kukatpally, Hyd - 85 | Member |
| 8 | Dr.A.Uma | Associate Professor and Head CBT, IST,JNTUH, Kukatpally, Hyd-85 | Member |
| 9 | Sri.J.Venkatesh | Associate Professor CSIT,IST, JNTUH, Kukatpally, Hyd – 85 | Member |
| 10. | Dr.S.Shobha Rani | Associate Professor and Head, CPS, IST, JNTUH, Kukatpally, Hyd – 85 | Member |
| 11. | Dr.T.Vijaya Lakshmi | Associate Professor, CEN,IST,JNTUH, Kukatpally, Hyd-85 | Member |
| 12. | Dr. CH. Shilpa Chakra | Assistant Professor and Academics Coordinator, IST, JNTUH Kukatpally, Hyd – 85 | Member |
| 13. | Dr.B.Sreedhar | Senior Principal Scientist, IICT, Taranaka, Hyderabad. | Member |
| 14. | Prof.M.Sarangapani | Principal,USPSC, Kakatiya University, Warangal, T.S | Member |
| 15. | Dr.V.RaghuVenkata Raman | Director, ADRIN, Hyderabad. | Member |
| 16. | Dr. Nagendra Hegde | Chief Scientist, NIAB, Hyderabad. | Member |
| 17. | Dr.P.N.Rao | Sr. Scientist, Central Ground Water Board, Southern Region, Bandlaguda ,Hyderabad. | Member |
| 18. | Dr.M.Madhavi Latha | Director, Academic and Planning, JNTUH, Kukatpally, Hyd – 85. | Member |
| 19. | Dr.V.Kamakshi Prasad | Director of Evaluation and Professor of CSE , JNTUH, Kukatpally, Hyderabad – 85. | Member |
| 20. | Dr.B.Venkateswara Rao | Professor of Water Resources, IST, JNTUH Kukatpally, Hyd – 85 | Special Invitee |
| 21. | Dr.M.Ajitha | Professor and Officer In-Charge of Examinations, JNTUH, Kukatpally, Hyd – 85. | Special Invitee |
| 22. | Dr.K.Ramamohan Reddy | Professor, CWR, IST,OSD to VC and Director I/c Academic Audit Cell, JNTUH, Kukatpally, Hyd – 85. | Member Secretary |

## Functions of the Academic Council :

Sanctions and approvals of the proposals with or without modifications of the Boards of Studies with regard to Course of Study, Academic Regulations, Curriculum, Syllabi and Evaluation arrangements.

Frame regulations for Conduct of Exams, for upgrading quality of teaching and evaluation.
Make regulations for Sports and Extra-curricular activities.
Approve candidates for conferment of Degrees / Diplomas by the University.
Recommend to the University for Institution of Scholarships / Gold Medals and to frame regulations for the award of the same.

**JNTUH ORGANISATION STRUCTURE :**



**INSTITUTE OF SCIENCE AND TECHNOLOGY**
**(AUTONOMOUS)**
**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**
**Kukatpally, Hyderabad-500 085, T.S., INDIA**

**Prof.B.Venkateswara Rao**
**D I R E C T O R**

**Lr.No/JNTUH/IST/ Academic Calendar/M.Tech/M.Pharm Regular/2019 Dt.23-08-2019**

**Sub:** IST/JNTU/M.Tech/M.Pharmacy/Regular/ Academic Calendar (2019 batch) - Reg.

** ** **

The approved Academic Calender for **M.Tech/M.Pharmacy Regular** – I & II Semesters (2019 batch) during the academic year 2019 - 2020.

| **M.Tech/M.Pharmacy - I Semesters (2019 batch) Regular:** | **Date Particulars** | **No of Weeks** |
|---|---|---|
| **ORIENTATION PROGRAMME** | 26.08.2019 to 31.08.2019 | **(1WEEK)** |
| I Unit of Instructions | 03.09.2019 to 26.10.2019 | **(8WEEKS)** |
| **I Mid Examinations** | 28.10.2019 to 02.11.2019 | **(1WEEK)** |
| II Unit of Instructions | 04.11.2019 to 28.12.2019 | **(8WEEKS)** |
| **II Mid Examinations** | 30.12.2019 to 04.01.2020 | **(2WEEKS)** |
| Preparation and Practicals | 06.01.2020 to 18.01.2020 | **(2WEEKS)** |
| **End Semester examinations** | 20.01.2020 to 01.02.2020 | **(2WEEKS)** |

**Commencement of next Semester class work : 03.02.2020**

| **M.Tech/M.Pharmacy -II Semesters (2019 batch) Regular:** | **Date Particulars** | **No of Weeks** |
|---|---|---|
| I Unit of Instructions | 03.02.2020 to 28.03.2020 | **(8WEEKS)** |
| **I Mid Examinations** | 30.03.2020 to 04.04.2020 | **(1WEEK)** |
| **INDUSTRIAL INTERNSHIP** | 06.04.2020 to 06.06.2020 | **(9WEEKS)** |
| II Unit of Instructions | 08.06.2020 to 01.08.2020 | **(3WEEKS)** |
| **II Mid Examinations** | 03.08.2020 to 07.08.2020 | **(1WEEK)** |
| Preparation and Practicals | 10.08.2020 to 22.08.2020 | **(2WEEKS)** |
| **End Semester examinations** | 24.08.2020 to 05.09.2020 | **(2WEEKS)** |

**Commencement of next Semester class work : 07-09-2020.**
**This is for your information and necessary action.**

**DIRECTOR**

Copy to: All the Heads of the Centers, IST,JNTUH, Hyd
O.I.E Regular & PTPG IST, JNTUH, Hyd
J.R & Account Section IST, JNTUH, Hyd
Director of Evaluation, JNTUH, Hyd
Controller of Examinations, JNTUH, Hyd

# Status of NBA Accreditaion

| S.No | Name of the Program | NBA Accreditation |
|---|---|---|
| 1 | M.Tech. Bio-Technology | Accredited |
| 2 | M.Tech. Chemical Technology | Not Accredited |
| 3 | M.Tech. Environmental Geomatics | Accredited |
| 4 | M.Tech. Environmental Management | Accredited |
| 5 | M.Tech. Nano-Technology | Not Accredited |
| 6 | M.Tech. Spatial Information Technology | Not Accredited |
| 7 | M.Tech. Water & Environmental Technology | Accredited |


**NATIONAL BOARD OF ACCREDITATION**
NBCC Place, East Tower, 4th Floor, Bhisham Pitamah Marg,
Pragati Vihar, New Delhi-110 003
Tel: +91 11 2436 0620-22, 2436 0654 ; Telefax: +91 11 4308 4903
Website: www.nbaind.org


NATIONAL BOARD of ACCREDITATION

**File No. 11-68-2010-NBA** **Dated: 29-03-2019**

**To**
**The Director,**
**JNTUH Institute of Sci. & Tech.(IST),**
**Kukatpally, Hyderabad- 500085**
**Telangana**

**Subject: Accreditation status of programmes applied by JNTUH Institute of Sci. & Tech.(IST), Kukatpally, Hyderabad- 500085 Telangana.**

Sir/Madam,

This has reference to your application I.D. No. 2071-14/10/2016 seeking accreditation by National Board of Accreditation in May, 2017 format to PG Engineering programs offered by **JNTUH Institute of Sci. & Tech.(IST), Kukatpally, Hyderabad- 500085 Telangana.**

2. An Expert Team conducted on-site evaluation of the programs from **26th-28th October, 2018** and further visit on **08th March, 2019**. The report submitted by the Expert Team was considered by the concerned Committees constituted for the purpose in NBA. The competent authority in NBA has approved the following accreditation status to the programs as given in the table below:

| Sl. No | Name of the Program(s) (PG) | Basis of Evaluation | Accreditation Status | Period of validity | Remarks |
|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. | Water & Environmental Technology | May,2017 Document | Accredited | Academic Years 2018-2019 to 2020-2021 i.e. Up to 30-06-2021 | Accreditation status granted is valid for the period indicated in Col.5 or till the program has the approval of the competent authority, whichever is earlier |
| 2. | Biotechnology | | Accredited | | |
| 3. | Environmental Management | | Accredited | | |
| 4. | Environmental Geomatics | | *Accredited | | |

***Observations made during the course of evaluation are indicated in annexure to this letter.**

3. It may be noted that only students who graduate during the validity period of accreditation, will be deemed to have graduated with an NBA accredited degree.

5. The accreditation status awarded to the programs as indicated in the above table does not imply that the accreditation has been granted to **JNTUH Institute of Sci. & Tech.(IST), Kukatpally, Hyderabad- 500085 Telangana** as a whole. **As such the Institution should nowhere along with its name including on its letter head etc. write that it is accredited by NBA because it is program accreditation and not Institution accreditation. If such an instance comes to NBA's notice, this will be viewed seriously.** Complete name of the program(s) accredited, level of program(s) and the period of validity of accreditation, as well as the Academic Year from which the accreditation is effective should be mentioned unambiguously whenever and wherever it is required to indicate the status of accreditation by NBA.

**Contd/-**

## CRITERION I – CURRICULAR ASPECTS

### 1.1 Curriculum Design and Development

1.1.1 Programmes for which syllabus revision was carried out during the CAY

| Name of the programme | Programme Code | Date(s) of revision |
|---|---|---|
| M.Sc Biotechnology | 031G0 | 03-05-2019 |
| M.Sc Microbiology | 031G1 | 03-05-2019 |
| M.Tech Biotechnology | 031D0 | 03-05-2019 |
| M.Tech (Chemical Technology) | 031D92 | 03.05.2019 |
| M.Sc Organic Chemistry | 031G08 | 03.05.2019 |
| M.Sc Analytical Chemistry | 031G22 | 03.05.2019 |
| M.Tech (Environmental Management) | 031D31 | 02.05.2019 & 03.05.2019 |
| M.Tech (Environmental Geomatics) | 031D60 | 02.05.2019 & 03.05.2019 |
| M.Tech(Nanotechnology) | NT | 02.05.2019 |
| M.Tech (Spatial Information Technology) | 031D32 | 06-06-2019 |
| M.Tech(Water and Environmental Technology) | 031D59 | 03.05.2019 |

| 1.1.2 Programs/ courses focussed on employability/ entrepreneurship/ skill development during the CAY | | | |
|---|---|---|---|
| **Programmewith Code** | **Date of Introduction** | **Course with Code** | **Date of Introduction** |
| | | Bionanotechnology(1BTPE1) | 03-05-2019 |
| | | Plant biotechnology and molecular pharming (2BT05) | 03-05-2019 |
| | | Biologics and Vaccine technology (2BTPE3) | 03-05-2019 |
| | | Animal cell and tissue engineering (2BTPE3) | 03-05-2019 |
| | | Bioreactor design and analysis(3BTPE5) | 03-05-2019 |
| | | Modelling and simulation in bioprocess (3BTPE5) | 03-05-2019 |
| | | Bioprocess instrumentation and control (3BTPE5) | 03-05-2019 |
| | | Business analytics (3BTOE) | 03-05-2019 |
| | | Industrial safety (3BTOE) | 03-05-2019 |
| | | Operations research (3BTOE) | 03-05-2019 |
| | | Cost management of engineering projects (3BTOE) | 03-05-2019 |
| **M.Tech (Biotechnology)** | 03-05-2019 | Composite materials (3BTOE)<br>Waste to energy (3BTOE) | 03-05-2019 |
| **M.Tech (Chemical Technology** | 06.12.2019 | Advances In Chemical Reactor & Technology | 30-Aug-19 to 31-Aug-19 |
| | 30-Aug-19 to 31-Aug-19 | Skill development | 30-Aug-19 to 31-Aug-19 |
| | | Simulation Lab(MATLAB/ASPEN PLUS) | 03.09.2019 |
| | | Research Methodology & IPR | 03.09.2019 |
| | | English for Research Paper Writing | 03.09.2019 |
| | | Disaster Management | 03-02-2020 |
| M.Tech (Environmental Management) 31D31 | 30-Aug-19 to 31-Aug-19 | Skill development | 30-Aug-19 to 31-Aug-19 |
| M.Tech (Environmental Geomatics) 31D60 | 30-Aug-19 to 31-Aug-19 | Skill development | 30-Aug-19 to 31-Aug-19 |
| Nil | Nil | Synthesis/Processing and Properties of nanostructures | 03-09-2019 |
| | | Materials Characterization Techniques | 03-09-2019 |
| | | Photonics(quantum confinement of materials) | 03-09-2019 |
| | | Nano biomedical Applications | 03-09-2019 |
| | | Synthesis, Fabrication and Characterization Lab | 03-09-2019 |
| | | Simulation Lab-I(Argus Lab & MAT lab) | 03-09-2019 |
| | | Research Methodology & IPR | 03-09-2019 |

| | | | |
|---|---|---|---|
| | | English for Research Paper Writing | 03-09-2019 |
| | | Disaster Management | 03-02-2020 |
| | | Nano Sensors and Devices | 03-02-2020 |
| | | Industrial trends and Applications of Nanotechnology | 03-02-2020 |
| | | Nanotechnology For Energy Systems | 03-02-2020 |
| | | Lithographic Techniques | 03-02-2020 |
| | | Nanostructured Material Application Lab | 03-02-2020 |
| | | Simulation Lab-II | 03-02-2020 |
| M.Tech(Spatial Information Technology) | 06.06.2019 | Spatial Information Technology | 06.06.2019 |
| M.Tech(Waterand Environmental Technology) | 19.09.2018 | Surface Water Hydrology (1WET01) | 19.09.2018 |
| | | Ground Water Hydrology (1WET02) | |
| | | Advanced Fluid Mechanics (1WETPE01) | |
| | | Air Pollution and Control Technologies (1WETPE02) | |
| | | Research Methodology & Intellectual Property Rights (1A01) | |
| | | English for Research Paper Writing (1A02) | |
| | | Hydrology Lab (1WET03) | |
| | | Environmental Lab (1WET04) | |
| | | Geospatial Applications in Water Resources (2WET05) | |
| | | Water and Wastewater Treatment Technologies (2WET06) | |
| | | Irrigation Management (2WETPE03) | |
| | | Environmental Impact Assessment (2WETPE04) | |
| | | English for Research Paper Writing (2A03) | |
| | | GIS & Image Processing Lab (2WET07) | |
| | | Water Resources Modelling Lab(2WET08) | |

| **1.2 Academic Flexibility** | |
|---|---|
| 1.2.1 New programmes/courses introduced during the CAY | |
| Programme/Course | Date of introduction |
| M.Tech (Biotechnology)<br>1. Bionanotechnology (1BTPE1)<br>2. Plant biotechnology and molecular pharming (2BT05)<br>3. Biologics and Vaccine technology (2BTPE3)<br>4. Animal cell and tissue engineering (2BTPE3)<br>5. Bioreactor design and analysis(3BTPE5)<br>6. Modelling and simulation in bioprocess (3BTPE5)<br>7. Bioprocess instrumentation and control (3BTPE5)<br>8. Business analytics (3BTOE)<br>9. Industrial safety (3BTOE)<br>10. Operations research (3BTOE)<br>11. Cost management of engineering projects (3BTOE)<br>12. Composite materials (3BTOE)<br>Waste to energy (3BTOE) | 03-05-2019 |
| M.Tech(Chemical Technology)<br>1. Mathematical and Statistical Methods in Chemical Engineering(1CT01)<br>2. Modern concepts in Catalysis and Surface Phenomenon (1CTPE02)<br>3. Research Methodology & Intellectual Property Rights(1A01)<br>4. English for Research Paper Writing(1A02)<br>5. Chemical Process Simulation Lab(1CT03)<br>6. Advanced Separation Processes Lab(1CT04)<br>7. Advanced Reaction Engineering<br>8. Disaster Management<br>9. Advanced Chemical Reaction Engineering Lab<br>10. Advanced Chemical Engineering Lab<br>11. Mini Project with Seminar | 03-05-2019 |
| M.Tech(Nano Technology)<br><br>1.Physics And Chemistry Of Materials(1NTPE01)<br>2. Photonics(quantum confinement of materials(1NTPE01)<br>3. Statistical Thermodynamics For Nanosystems (1NTPE01)<br>7. Nano biomedical Applications<br>8. Nano Bio Technology<br>9. Bio nanostructures<br>10.Industrial trends and Applications of Nanotechnology | 03-09-2019 &03-02-2020 |
| M.Tech(Water and Environmental Technology)<br>1. Water Quality Management and Modeling (1WETPE01)<br>2.Hydro Power Development (3WETPE)<br>3.Micro Irrigation Technologies (3WETPE)<br>4.Business Analytics (3WETOE)<br>5.Industrial Safety (3WETOE)<br>6.Operations Research (3WETOE)<br>7.Cost Management of Engineering Projects (3WETOE)<br>8.Composite Materials (3WETOE)<br>9.Waste to Energy (3WETOE)<br>10.Environmental Statistics (3WETOE) | 03-05-2019 |
| | |

| **1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the University level during the CAY** | | | | | |
|---|---|---|---|---|---|
| Name of Programmes adopting CBCS | **UG** | **PG** | Date of implementation of CBCS / Elective Course System | **UG** | **PG** |
| M.Tech (Biotechnology) | **NA** | M.Tech | 2015 | **NA** | YES |
| M.Sc (Biotechnology) | **NA** | M.Sc | 2015 | **NA** | YES |
| M.Sc (Microbiology) | **NA** | M.Sc | 2015 | **NA** | YES |
| M.Tech (Chemical Technology) | **NA** | M.Tech | 2015 | **NA** | YES |
| M.Sc (Organic Chemistry) | **NA** | M.Sc | 2015 | **NA** | YES |
| M.Sc (Analytical Chemistry) | **NA** | M.Sc | 2015 | **NA** | YES |
| M.Tech(NanoTechnology) | **NA** | M.Tech | 2015 | **NA** | **YES** |
| M.Tech (Water and Environmental Management) | **NA** | M.Tech | 2015 | **NA** | YES |
| M.Tech (Spatial Information Technology) | **NA** | M.Tech | 2015 | **NA** | YES |
| If already adopted (mention the year) | | | | | |

| **1.3 Curriculum Enrichment** | | |
|---|---|---|
| 1.3.1 Value-added courses imparting transferable and life skills offered during the CAY | | |
| Value added courses | Date of introduction | Number of students enrolled |
| M.Tech (Biotechnology)<br>1. English for research paper writing<br>2. Disaster management<br>3. Sanskrit for technical knowledge<br>4. Value education<br>5. Constitution of India<br>6. Pedagogy studies<br>7. Stress management by Yoga<br>8. Personality Development through life enlightenment skills | 03-05-2019 | 15 |
| 1. English for research paper writing<br>2. Disaster management<br>3. Sanskrit for technical knowledge<br>4. Value education<br>5. Constitution of India<br>6. Pedagogy studies<br>7. Stress management by Yoga<br>8. Personality Development through life enlightenment skills<br>9. Research Methodology & Intellectual Property Rights | 03-05-2019 | 28 (I & II Sem) |
| 1. English for research paper writing<br>2. Disaster management<br>3. Sanskrit for technical knowledge<br>4. Value education<br>5. Constitution of India<br>6. Pedagogy studies<br>7. Stress management by Yoga<br>8. Personality Development through life enlightenment skills | 03-05-2019 | 15 |
| Soft Skill Development | 20.08.2018 | 90 |
| Soft Skill Development | 20.08.2018 | 90 |
| Synthesis/Processing and Properties of nanostructures | 03-09-2019 | 12 |
| Materials Characterization Techniques | 03-09-2019 | 12 |
| Photonics(quantum confinement of materials) | 03-09-2019 | 12 |
| Nano biomedical Applications | 03-09-2019 | 12 |
| Synthesis, Fabrication and Characterization Lab | 03-09-2019 | 12 |
| Simulation Lab-I(Argus Lab& MAT lab) | 03-09-2019 | 12 |
| Research Methodology & IPR | 03-09-2019 | 12 |
| English for Research Paper Writing | 03-09-2019 | 12 |
| Disaster Management | 03-02-2020 | 12 |
| Nano Sensors and Devices | 03-02-2020 | 12<br>12 |

| | | |
|---|---|---|
| Industrial trends and Applications of Nanotechnology | 03-02-2020 | 12 |
| Nanotechnology For Energy Systems | 03-02-2020 | 12 |
| Lithographic Techniques | 03-02-2020 | 12 |
| Nanostructured Material Application Lab | 03-02-2020 | 12 |
| Simulation Lab-II | 03-02-2020 | 12 |
| Mini Project with Seminar | 03-02-2020 | 12 |
| Comprehrensive Viva-Voce(External) | 22-07-2019 | 12 |
| Project work Review II | 22-07-2019 | 12 |
| Project work Review III | 23-12-2019 | 12 |
| Mini Project<br>Short Assignments<br>Audit Course<br>Industrial and Field Visit<br>Internship projects | 2019 | 51 |
| ➢ English for research paper writing<br>Disaster management<br>➢ Sanskrit for technical knowledge<br>Value education<br>➢ Constitution of India Pedagogy studies<br>➢ Stress management by Yoga<br>Research Methodology and IPR<br>Personality Development through life enlightenment skills<br>➢ Soft Skill Development<br>➢ Communication soft skills | To be implemented in Next academic Year 2019-20 | 15 |
| ➢ Mini Project<br>➢ Short Assignments<br>Audit Course<br>➢ Industrial and Field Visit<br>Internship projects<br>Comprehensive Viva-Voce<br>➢ Project work Review -I<br>➢ Project work Review II<br>➢ Project work Review III<br>➢ Comprehensive Viva-Voce | 20-07-2019 | |

| 1**.3.2 Field Projects / Internships under taken during the CAY** | |
|---|---|
| Project/Programme Title | No. of students enrolled for Field Projects / Internships |
| M.Sc (Biotechnology) | 23 |
| M.Sc (Microbiology) | 25 |
| M.Tech (Biotechnology) | 15 |
| M.Tech(Chemical Technology) | 06 |
| M.Sc(Organic Chemistry) | 15 |
| M.Sc(Analytical Chemistry) | 10 |
| M.Tech (Environmental Management) | |
| Impact of Urbanization on air quality in an around off HMDA | DIDDI SAI VISHAL |
| The role of micro irrigation for modern agriculture | MAMIDI SRAVYA |

| | |
|---|---|
| Enhancement of energy recovery from sludge | NENAVATH BHARATH |
| Studies on the efficiencies of municipal solid waste management in Nandyal town | PAMIREDDYGARI SANTHOSH REDDY |
| Environmental impact assessment study for "Kakatiya Maga textile park Warangal" | PARALA MAHESH |
| Environmental impact assessment study for "Green Industrial park, Hyderabad" | PARALA MAHESH |
| Study on impact an industry on ground water quality | PARALA MAHESH |
| Sources apportiment of particulate matter in Hyderabad. Urban using receptor modelling | VEMULA DEVI SHARADA |
| Microbial healing of cracks in concrete | VEMULA SMRITHI |
| Treatment of new landfill leachate from municipal solid waste | VODNALA MANEESHA |
| Sea water intrusion (modelling) around a costal aquifer | N. AKHILA |
| Lake modelling (comprehensive monitoring and modelling of a lake in Hyderabad | RACHAMALLU SRINIJA |
| Ground water modelling of landfill leachate around chloro alkali industry | SYED HASSAN HUSSAINI |
| **M.Tech (Environmental Geomatics)** | |
| Damage assessment of hud-hud cyclone by using GIS techniques | ALISHYM SANGEETHA |
| Estimation of electrical distribution and preparation of its network maps in Moinabad town, R.R District using GIS & GPS technology | BUDIDHA SHASHIKANTH |
| Crop yield model by remote sensing | CHINTAMALA AKHILA |
| Development of continuous water supply system approach at rajendra nagar area using district metered area concept & GIS | KONDLA MRUDULA |
| Environmental impact assessment study for "Induction furnace production and rolling mil production | MALLARAPU SHASHI PREETHAM |
| Impact of road connectivity towards sustainable rural development using Geo spatial technology under PMGSY scheme | NASPOORI SUDHIR |
| Built- up area density mapping and assessment for tree cover canopy in dense Built-up areas using machine learning and statistical analysis | POODARI VENKATA RAMANA |
| Development of wheat yield proxy using sattilite and ancillary data for Haryana state. | VELPULA SANDHYARANI |
| Application of GIS and Remote Sensing in monitoring waste water flow into the ISNAPUR LAKE | M.Vamshi Krishna<br>P.Manasa |
| Aerated Wet Lands : Sustainable Nature Based Solution For Present And Future Socio Environment And Climate Change | V.Sujana -18031d5916 |

| **1.4 Feedback System** | | | | |
|---|---|---|---|---|
| 1.4.1 Whether structured feedback received from all the stakeholders. | | | | |
| 1) Students | 2) Teachers | 3) Employers | 4) Alumni | 5) Parents |
| **Centre for Biotechnology (CBT)** | | | | |
| Yes | No | Yes (Offline process) | Yes | No |
| **Centre for Chemical Science & Technology (CCST)** | | | | |
| Yes | No | No | Yes (offline) | No (offline) |
| **Centre for Environment (CEN)** | | | | |
| Yes | **No** | Yes | Yes | Yes |
| **Centre for Nano Science and Technology (CNST)** | | | | |
| Yes | No | No | No | No |
| **Centre for Pharmaceutical Sciences (CPS)** | | | | |
| 2019 | NA | 53 | NA | 09 |
| **Centre for Spatial Information and Technology (CSIT)** | | | | |
| Yes | Yes | No | No | No |
| **Centre for Water Resources (CWR)** | | | | |
| Yes | No | Yes (offline printed document is available) | Yes (offline printed document is available) | Yes(off line printed document is available) |
| | | | | |

1.4.2 How the feedback obtained is being analysed and utilized for overall development of the institution? (maximum 500 words)

**Centre for Biotechnology (CBT)**

Feedback on the teaching-learning process is an online process which includes 1) Course exit survey; given by the students 3 times, immediately after commencing the class work, before first mid examination and the end of the semester, 2) Program exit survey at the end of the program by the students, 3) Alumni survey taken from alumni annually during alumni meeting and 4) Employer survey taken from employer annually, where the student joined. The received feedback is then analyzed and it is also forwarded to the Head of the institution with necessary suggestions based on this feedback. Teachers provide informal as well as formal feedback to the head of the institution on different academic, administrative and other affairs related to the college. Grievances (if any) and necessary suggestions can be registered to the Grievance Redressal cell of the institution.

**Centre for Chemical Science & Technology (CCST)**

Student's feedback is taken by Online. Online link will be sent to their individual mails. 3 feedbacks will be taken by the students 1st feedback after MID-I, Second feedback before 2nd MID and third Feedback after MID-II. Overall performance of the faculty can be rated out of 5 based on different questionnaire. Employers Alumni, Parents feedback on the effectiveness of the system is obtained through specially designed feedback forms. The faculty of the college attends seminars and conferences in order to acquaint

themselves with the latest development in their field. The knowledge is imparted to the students in the lecture and communicated to the university by suggesting curriculum changes in the meeting of Board of Studies.

**Centre for Environment (CEN)**

- The student feedbacks are collected after completion of every course in each semester/program.
- Alumni and Employers feedback also collected from the outgoing/passed out students.
- These feedbacks are continuously evaluated by head of the department/Director.
- According to the feedbacks/suggestions from the students the head or director will take the sensory action, modifications and implementation

**Centre for Nano Science and Technology (CNST)**

Feed back in a semester three times will be discussed as we are taking online feedbacks from the students and the same is informed to the faculty for introspection and improvement

**Centre for Pharmaceutical Sciences (CPS)**

The feedback obtained from the students was analyzed for their problems. Most of the students were seeking for study materials for different subjects and the materials were collected by concerned faculty members in the form of hard or soft copies and given to them. Based on the revised syllabus the chemicals, instruments, etc., were procured to improve the laboratory work. The feedback from Alumni students helped the current students how to get hired by reputed companies and skills required by students to survive in competitive world and to improve their personality special classes were introduced on communication skills to mould the students to face the interviews effectively.

**Centre for Spatial Information Technology (CSIT)**

- Feed back in a semester three times will be discussed as we are taking online feedbacks from the students and the same is informed to the faculty for introspection and improvement
- Feedback on the teaching-learning process is an online process which includes
- Course exit survey; given by the students 3 times, immediately after commencing the class work, before first mid examination and the end of the semester,

Program exit survey at the end of the program by the students

**Centre for Water Resources (CWR)**

- Feed back in a semester three times will be discussed as we are taking online feedbacks from the students and the same is informed to the faculty for introspection and improvement
- Feedback on the teaching-learning process is an online process which includes
- Course exit survey; given by the students 3 times, immediately after commencing the class work, before first mid examination and the end of the semester,
- Program exit survey at the end of the program by the students,
- Alumni survey taken from alumni annually during alumni meeting and
- Employer survey taken from employer annually, where the student joined. The received feedback is then analysed and it is also forwarded to the Head of the institution with necessary suggestions based on this feedback. Teachers provide informal as well as formal feedback to the head of the institution on different academic, administrative and other affairs related to the college. Grievances (if any) and necessary suggestions can be registered to the Grievance Redressal cell of the institution.

**CRITERION II -TEACHING-LEARNING AND EVALUATION**

**2.1 Student Enrolment and Profile**

**2.1.1 Demand Ratio during the CAY**

| Name of the Programme | Number of seats available | Number of applications received | Students Enrolled |
|---|---|---|---|
| M.Sc Biotechnology | 25(+5 Other category) | 70 | 26 |
| M.Sc Microbiology | 25(+5 Other category) | 80 | 28 |
| M.Tech Biotechnology | 18 | 30 | 15 |
| M.Tech(Chemical Technology) | 18 | As per GATE/PGECET notification | 14 |
| M.Sc(Organic chemistry) | 25 | As per the notification of TSCPGET | 23 |
| M.Sc(Analytical chemistry) | 25 | As per the notification of TSCPGET | 22 |
| M.Tech (Environmental Management) (2019 batch) | 24 | As per GATE/PGECET notification | 16 |
| M.Tech (Environmental Geomatics) (2019 batch) | 24 | As per GATE/PGECET notification | 16 |
| M**.** Tech**.** (Nanotechnology) 2019-21 batch | 18 | 16 | 16 |
| M.Pharmacy (Pharmaceutical Analysis) | 18 | 18 | 17 |
| M.Pharmacy (Pharmaceutics) | 18 | 19 | 19 |
| M.Pharmacy (Pharmacognosy) | 18 | 18 | 17 |
| M.Tech (Spatial Information Technology) | 18 | 15 | 13 |
| M.Tech (Water and Environemental Technology) | 18 | 15 | 15 |

**2.2 Catering to Student Diversity**

**2.2.1. Student - Full time teacher ratio (current year data)**

| Year | Number of students enrolled in the institution (UG) | Number of students enrolled in the institution (PG) | Number of full-time teachers available in the institution teaching only UG courses | Number of full-time teachers available in the institution teaching only PG courses | Number of teachers teaching both UG and PG courses |
|---|---|---|---|---|---|
| **Centre for Biotechnology (CBT)** | | | | | |
| 2019 | NIL | 68 | NIL | 9 | NIL |

| | | | | | |
|---|---|---|---|---|---|
| **Centre for Chemical Science & Technology (CCST)** | | | | | |
| 2019 | -- | 55 | -- | 10 | -- |
| **Centre for Environment (CEN)** | | | | | |
| M.Tech (EMT) 2018 | | 15 | 6 | | |
| M.Tech (EGM) 2018 | | 17 | | | |
| M.Tech (EMT) 2019 | | 16 | 6 | | |
| M.Tech (EGM) 2019 | | 16 | | | |
| **Centre for Nano Science and Technology (CNST)** | | | | | |
| 2019-20 | NA | 16 | NA | 03 | NA |
| **Centre for Spatial Information and Technology (CSIT)** | | | | | |
| 2019 | - | 53 | - | 09 | 09 |
| **CSIT** | | | | | |
| 2019 | N/A | 15 | | 03 | 01 |
| **Centre for Water Resources (CWR)** | | | | | |
| 2019 | NA | 15 | NA | 4 | 4(PG) |

**2.3 Teaching - Learning Process**

2.3.1 Percentage of teachers usingICT foreffective teaching with Learning Management Systems (LMS), E-learningresourcesetc. (**current year data**)

| Number of teachers on roll | Number of teachers using ICT *(LMS, e-Resources)* | ICT tools and resources available | Number of ICT enabled classrooms | Number of smart classrooms | E-resources and techniques used |
|---|---|---|---|---|---|
| **Centre for Biotechnology (CBT)** | | | | | |
| 9 | 9 | Smart Boards | 3 | 3 | E-text, E-assignments Powerpoints Animated vedios |
| **Centre for Chemical Science & Technology (CCST)** | | | | | |
| 9 | 9 | Yes | 4 | 4 | Powerpoints Animated |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | vedios, Projectors,E-Library |
| **Centre for Environment (CEN)** | | | | | |
| 6 | Yes | Yes | 2 | 2 | Yes |
| **Centre for Nano Science and Technology (CNST)** | | | | | |
| 03 | 03 | LCD Projectors-4, E-classrooms-1 Printers-8 Lan connectivity to all computers Total no of computers 26 | E-classrooms-1 | NIL | Computers with internet connection, LCD Projectors, Overhead projectors |
| **Centre for Pharmaceutical Sciences (CPS)** | | | | | |
| 9 | 9 | LCD Projectors-3 | E-classrooms-2 | 2 | Computers with internet, LCD Projectors, E-assignments Powerpoints Animated videos, E-Library |
| **Centre for Spatial Information and Technology (CSIT)** | | | | | |
| 2 | 3 | computers , software, laptops | 2 | 2 | E-Library |
| **Centre for Water Resources (CWR)** | | | | | |
| 4 | YES | YES | 1 | 1 | YES |

2.3.2 Students mentoring system available in the institution? Give details. (Maximum 500 words)

**Centre for Biotechnology (CBT)**

Mentoring of students is based on the following objectives:
 To increase the teacher-student contact hours
 To identify and address the problems faced by slow learners
 To decrease the student drop-out rates
 To prepare students for the competitive world

Every year, department and the individually organize orientation sessions on the class commencement day for students of first semesters and explain the designing and implementation of the mentoring system of the department.

- 3 sessions of personal counseling by allotting ~ten students / Faculty on Behavioral issues, career opportunities etc.,
- Students are given mentoring for NET / SET
- Placement cell, grievance redressal cell, anti- ragging cell
- Student scholarships (SC, ST,BC,EBC, Minority)
- Students are encouraged to :
    - Attend seminars/conferences
    - Participate in sports and cultural activities
    - Attend lectures on soft and communicative skills and stress management

Outcomes-

- The students pass percentage in the examinations is quiet encouraging
- After completion of PG Courses, our students are equipped to qualify in CSIR/UGC-NET, SET, GATE, ICMR and other competitive examinations
- Based on the Employer feed back, the students placed in the industries are performing well

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor: Mentee Ratio |
|---|---|---|
| 68 | 9 | **1:7.5** |

**Centre for Chemical Science & Technology (CCST)**

Yes

Student Mentoring System is available in the centre. Each faculty is the mentor of a group of 6 students. First year students have mentors from the department 2nd year students have mentors from the parent department. Departmental faculties will continue to be mentors for the same group of students till their Masters. Every Friday there is one slot for interaction with students. In this meeting mentor communicates personally with each student to understand the academic problems or personal issues of students. If the problem is within her/his scope he/she her; Otherwise it is forwarded to the higher authority and medical counsellor.

Responsibilities :

- Mentors are assigned to monitor and guide students all through the two years.
- Mentors coordinate with the parents regarding the progress of the students.
- Mentors also keep track of the mentees' performance during the summer internship by continuous interaction with the industry guide designated to the student by the company.
- Mentors communicate with fellow faculty and promote mentees at the time of difficulty / opportunity to help them develop further in their areas of interest.

The HODs (Head of the Department)

- Meet all the mentor of his/her course twice in a month to review proper implementation of the system.
- Advice mentors wherever necessary.
- Initiate administrative action on student when necessary.

Keep the head of the institute informed.

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor: Mentee Ratio |
|---|---|---|
| **55** | **01- Professor (Permanent)**<br>**01-Professor(C )**<br>**01-Emeritus Professor**<br>**01(Associate Professor(c)**<br>**05-Assistant Professor(c)** | **1:6** |

**Centre for Environment (CEN)**

**YES:**

In every semester Five to six number of students are allotted to each teacher for mentoring

- The mentors will be monitored continuously about student regularly and the records are mentioned in the department

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor: Mentee Ratio |
|---|---|---|
| **64** | **6** | **10.66** |

**Centre for Nano Science and Technology (CNST)**

Yes. Students are mentored for seminars and student related problems. Mentoring is based on semester wise. Mentoring includes questions asked to students related to improvement in subjects, course and career. Mentoring books are provided by the TEQIP-III, IST, JNTUH, which consist of students information, semester wise details and day to day counselling details. Each faculty Advisor will be having 4 to 5 students. Problem related to students will also be discussed with mentoring solutions will also be discussed.

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor: Mentee Ratio |
|---|---|---|
| **16** | **03** | **03:16** |

**Centre for Pharmaceutical Sciences (CPS)**

Yes. There is a good student mentoring system in the department which enables the students to get improvement not only in the studies but also in their personality development. The students are divided into batches each faculty is assigned with one batch to look over their performance in the exams and lab work. Based on their performance the students are further trained to overcome their drawbacks by conducting remedial classes, assignments, etc., by which the students under their respective mentor are moulded into a perfect learner.

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor: Mentee Ratio |
|---|---|---|
| 53 | 9 | 1:6 |

**Centre for Spatial Information and Technology (CSIT)**

- Mentors are assigned to monitor and guide students all through the two years.
- Mentors coordinate with the parents regarding the progress of the students.
- Mentors also keep track of the mentees' performance during the Summer internship by continuous interaction with the industry guide designated to the student by the company.

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor: Mentee Ratio |
|---|---|---|
| **15** | **02** | **03** |

**Centre for Water Resources (CWR)**

Mentoring of students is conducted by the departments of the institution. Mentoring of students is based on the following objectives:

- To increase the teacher-student contact hours
- To identify and address the problems faced by slow learners
- To decrease the student drop-out rates
- To prepare students for the competitive world

Every year, department and the individually organize orientation sessions on the class commencement day for students of first semesters and explain the designing and implementation of the mentoring system of the department.

- 3 sessions of personal counseling by allotting ~ten students / Faculty on Behavioral issues, career opportunities etc.,
- Students are given mentoring for NET / SET
- Placement cell, grievance redressal cell, anti- ragging cell
- Student scholarships (SC, ST,BC,EBC, Minority)
- Students are encouraged to :
  - Attend seminars/conferences
  - Participate in sports and cultural activities
  - Attend lectures on soft and communicative skills and stress management

Outcomes-

- The students pass percentage in the examinations is quiet encouraging
- After completion of PG Courses, our students are equipped to qualify in CSIR/UGC-NET, SET, GATE, ICMR and other competitive examinations
- Based on the Employer feedback, the students placed in the industries are performing well

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor: Mentee Ratio |
|---|---|---|
| **15** | **04** | **1:5** |

## 2.4 Teacher Profile and Quality

### 2.4.1 Number of full-time teachers appointed during the CAY

| **No. of sanctioned positions** | **No. of filled positions** | **Vacant positions** | **Positions filled during the current year** | **No. of faculty with Ph.D** |
|---|---|---|---|---|
| Centre for Biotechnology (CBT) | | | | |
| NIL | NIL | NIL | NIL | NIL |
| Centre for Chemical Science & Technology (CCST) | | | | |
| NIL | NIL | NIL | NIL | NIL |
| Centre for Environment (CEN) | | | | |
| 5 | 4 | 01 | 0 | 4 |
| Centre for Nano Science and Technology (CNST) | | | | |
| 1(Contract Faculty) | 1(Contract Faculty) | 0 | 1(Contract Faculty) | 02 |
| Centre for Pharmaceutical Sciences (CPS) | | | | |
| NIL | NIL | NIL | NIL | NIL |
| Centre for Spatial Information and Technology (CSIT) | | | | |
| No | 03 | 01 | No | 01 |
| Centre for Water Resources (CWR) | | | | |
| NIL | NIL | NIL | NIL | NIL |

**2.4.2 Honours and recognitions received by teachers**
(received awards, recognition, fellowships at State/National/International level from Government, recognised bodies during the CAY)

| Year of award | Name of full time teachers receiving awards from state level, national level, international level | Designation | Name of the award, fellowship, received from Government or recognized bodies |
|---|---|---|---|
| 2019 | Dr.ArchanaGiri | Professor, BOS chair person | Meritorious teacher award |
| 2019 | Dr.ArchanaGiri | Professor, BOS chair person | Fellow of the Telangana Academy of Sciences (FTAS) for the year 2019. |
| 2020 | Dr.T.VijayaLaksmi | Associate professor & BOS chair person | EC member JNTUH |
| 2018-19 | Dr. K. Venkateswara Rao | Professor & Head of the Department | Awarded as NPTEL Certificate of appreciation Instrumental role as SPOC for swayam NPTEL local chapter. |
| 2018-19 | Dr. CH. Shilpa Chakra | Assistant Professor | Elected as Associate fellow in Engineering Sciences from Telangana Academy of Engineering Sciences<br><br>Elected as Associate Fellow in Engineering Sciences from Andhra Pradesh Academy of Sciences<br><br>Rastriya pratiba award (for talented personality in India) by Indo socio Development Association |
| 2019 | PROF.M.V.S.S.GIRIDHAR | PROFESSOR, CWR, IST,JNTUH | WMF AWARD FOR BEST CONTRIBUTION TOWARDS CONSERVATION OF WATER 2019, WATER MANAGEMENT FORUM, A PHERIPHERAL BODY OF THE INSTITUTE OF ENGINEERS (INDIA) |
| 2019 | PROF.K.RAMAMOHAN REDDY | PROFESSOR, CWR,IST,JNT | OSD to VC, Director of Audit cell |

| | | | |
|---|---|---|---|
| | | UH | |
| 2019 | PROF.K.RAMAMOHAN REDDY | PROFESSOR , CWR, IST,JNTUH | CO-ORDINATOR FOR THE TRAINING PROGRAM GIVEN TO EMPLOYEES OF INFOSYS COMPANY, HYDERABAD ON "INTERMEDIATE CONCEPTS OF GIS" DURING MARCH –APRIL 2019. |
| 2019 | PROF. B.VENKATESWARA RAO | PROFESSOR , CWR, IST,JNTUH | VICE PRESIDENT INDIAN METEOROLOGICAL SOCIETY (IMS) Hyderabad |
| 2016-2019 | PROF. B.VENKATESWARA RAO | PROFESSOR, CWR, IST, JNTUH . | ELECTED AS PRESIDENT FOR ASSOCIATION OF GLOBAL GROUNDWATER SCIENTISTS (AGGS) FOR THE TERM 2016-19 AND FELLOW FROM THE YEAR 2019. |

**2.5 Evaluation Process and Reforms**

2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the CAY

| Programme Name | Programme Code | Semester/ year | Last date of the last semester-end/ year-end examination | Date of declaration of results of semester-end/ year-end examination |
|---|---|---|---|---|
| M.Sc. Biotechnology (2018-20) | M.Sc (BT) | 2nd Semester-2019 | July 2019 | 18th September 2019 |
| M.Sc. Microbiology (2018-20) | M.Sc (MB) | 2nd Semester-2019 | July 2019 | 18th September 2019 |
| M.Tech. Biotechnology (2018-20) | M.Tech (BT) | 2nd Semester-2019 | July 2019 | 18th December 2019 |
| M.Sc. Biotechnology (2018-20) | M.Sc (BT) | 3rd Semester--2019 | December 2019 | 20th May 2020 |
| M.Sc. Microbiology (2018-20) | M.Sc (MB) | 3rd Semester-2019 | December 2019 | 20th May 2020 |
| M.Sc | Organic Chemistry | III/2018 | 28.12.2019 | June /2020 |
| M.Sc | Analytical Chemistry | III/2018 | 28.12.2019 | June/2020 |
| M.Sc | Analytical Chemistry | I/2019 | 05.02.2020 | June/2020 |

| | | | | |
|---|---|---|---|---|
| M.Sc | Organic Chemistry | I/2019 | 05.02.2020 | June/2020 |
| M.Tech | Chemical Technology | I/2019 | 29.01.2020 | June/2020 |
| M.Tech (Environmental Management) | 031D31 | I semester 2019 batch | 20-01-2020 (I-semester 2019 batch)) | |
| M.Tech (Environmental Geomatics) | 031D60 | I semester 2019 batch | 20-01-2020 (I-semester 2019 batch)) | |
| M.Tech (Nano Technology) 2018-20 Batch | NT | III semester/2019 | 13-12-2019 | 17-06-2020 |
| M. Pharmacy Pharmaceutical Analysis | S04 | II/I | April2020 | July 2020 |
| M. Pharmacy Pharmaceutics | S03 | II/I | April2020 | July 2020 |
| M. Pharmacy Pharmacognosy | S07 | II/I | April2020 | July 2020 |
| M.Tech (Spatial Information Technology) | 32 | I/I | 20-01-2020 (I- semester 2019 batch)) | July /2020 |
| M.Tech (Water and Environmental Technology) | 59 | I SEMESTER /2019 | 01-02-2020 | June 2020 |
| M.Tech (Water and Environmental Technology) | 59 | II SEMESTER /2020 | 24-08-2020 | June 2020 |

2.5.2 Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the CAY

****Do not include re-evaluation/ re-totalling***

| Number of complaints or grievances about evaluation | Total number of students appeared in the examination | Percentage |
|---|---|---|
| **Centre for Spatial Information and Technology (CSIT)** | | |
| NIL | NIL | NIL |
| **Centre for Biotechnology (CBT)** NIL | NIL | NIL |
| **Centre for Chemical Science & Technology (CCST)** | | |
| **NIL** | **NIL** | **NIL** |
| **Centre for Pharmaceutical Sciences (CPS)** | | |
| NIL | NIL | NIL |
| **Centre for Nano Science and Technology (CNST)** | | |

| | | |
|---|---|---|
| NIL | NIL | NIL |

**Centre for Environment (CEN)**
**Centre for Nano Science and Technology (CNST)**
**Centre for Water Resources (CWR)**

| | | |
|---|---|---|
| NIL | NIL | NIL |

## 2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

http://jntuhist.ac.in

### Centre for Water Resources (CWR)

**Program Outcomes**

**PO1:** An ability to independently carry out research /investigation and development work to solve practical problems

**PO2:** An ability to write and present a substantial technical report/document

**PO3:** Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

**PO4:** Students should be able to cope with changing technological environment to meet the challenges emanating out of Climate change and Environment.

| S.No | Course Code/Course Title | Course Outcomes |
|---|---|---|
| **1.** | WET -01<br>Surface Water Hydrology | The student is expected<br>**CO1:** To learn about precipitation and its measurement, analysis and interpretation. |
| | | **CO2:** Know about abstractions to rainfall, infiltration, evaporation and transpiration along with their estimation and derivation of unit hydrograph from hydrograph. |
| | | **CO3:** Gain Knowledge about floods, its estimation, combat floods and flood routing. |
| | | **CO4:** Familiarize with surface water pollution, causes, effects and remedial measures. |
| | | **CO5:** Acquire knowledge about disasters and its management, conservation of water and climate change and its impact on water resources. |
| **2** | WET- 02<br>Ground Water Hydrology | **CO1:** To understanding the fundamentals concepts of groundwater for its storage movement governing laws with field and laboratory estimation of hydraulic properties. |
| | | **CO2:** Derivation of flow of Water through porous media its governing equations and estimation of aquifer parameters with various types of pumping tests in tube wells and open wells. |
| | | **CO3:** Application of ground water exploration techniques by using geophysical methods such as electrical resistivity methods and seismic refraction method to explore groundwater. |
| | | **CO4:** Practicing various groundwater management techniques such as artificial recharge, conjunctive use basin management and control of sea water intrusion. |
| | | **CO5:** To understand the groundwater pollution, remediation and modeling of the aquifer with respect to flow model and transport model. |
| **3** | WET -03<br>Advanced Fluid Mechanics | The Student is expected to<br>**CO1:** Inculcate knowledge on description of fluid motion, stream and velocity potential, their properties and applications. |
| | | **CO2:** Develop understanding on the dynamics of Ideal fluids, applications to one dimension problems and evaluate the problems on pipe bend, venturimeter and orifice meter. |

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| | | **CO3:** Imbibe the equations of real fluids like Navier Stokes equation, Stokes flow and Hagen Poiseuille flow. |
| | | **CO4:** Acquire knowledge on boundary layer flow for various expressions and equation on laminar and turbulent boundary, Integral momentum and boundary layer separation. |
| | | **CO5:** Grasp the basic idea of turbulence in fluid flow. |
| **4** | WET-04<br>Hydraulic Structures | The student is expected<br>**CO1:** To learn about gravity dams, its analysis and design, theoretical and practical profile of gravity dam. |
| | | **CO2:** Understand spillways, types, operation, relative merits and demerits, energy dissipation, types of stilling basins and design specifications. |
| | | **CO3:** Know about earth dams, its suitability, types, design and analysis, types of failures and remedial measures. |
| | | **CO4:** Gain knowledge about rock fill dams, types, its suitability and safety measures. |
| | | **CO5:** Be familiar with classification of arch and buttress dams, stability analysis, relative merits and demerits and design. |
| **5** | WET -04<br>Applied Statistical Methods | The students should be able<br>**CO1:** To solve applied problems using differentiation and integration. |
| | | **CO2:** Understand, apply and examine the confidence intervals, tests of hypotheses and regression analysis. |
| | | **CO3:** Gain knowledge on finite difference approximations and to solve practical problems concerned to groundwater. |
| | | **CO4:** Develop the ability to generate the governing finite element equations for systems governed by partial differential equations. |
| | | **CO5:** Comprehend the fuzzy logic control and design the fuzzy logic using genetic algorithm. |
| **6** | WET -04<br>Water Supply and Treatment Technologies | The student is expected<br>**CO1:** To learn about water transmission pipe networks, non-revenue water and wastewater treatment as a part of water conservation. |
| | | **CO2:** Understand different water treatment units and its stages and design of water treatment plant using CAD. |
| | | **CO3:** Be acquainted with advanced water treatment methods for the removal of various pollutants including metals. |
| | | **CO4:** Understand corrosion of pipes, causes, effects and control. |
| | | **CO5:** Have thorough idea about ecological sanitation and know about grey water management and recycling of nutrients. |
| **7** | WET- 04<br>Environmental Chemistry and Microbiology | The student is expected to<br>**CO1:** Develop an understanding of structure and formation of an ecosystem. |
| | | **CO2:** Gain knowledge on energy flow and to understand biogeochemical cycles and their significance in the sustainability ecosystems. |
| | | **CO3:** Gain competency and understanding of the significance of chemical and biological reactions in environmental problems. |
| | | **CO4:** Identify domestic waste, household, community waste disposals and also to familiarize with chemistry of pesticides, insecticides, herbicides, detergents, and rodent control chemicals. |
| | | **CO5:** Acquire knowledge on soil, air, aquatic, domestic water and sewage, foods, milk and industrial microbiology. |
| **8** | WET-05<br>Geo-Physical Exploration and Watershed Management | **CO1:** Understanding the hydro geological concepts and occurrence of groundwater in various rock formations application of hydrological methods to groundwater exploration. |
| | | **CO2:** Application of various geophysical methods for groundwater exploration. |
| | | **CO3:** Learning the drilling methods and construction of water wells in various rock formations. |
| | | **CO4:** Learning the design development of water well using well logging and well hydraulic methods. |
| | | **CO5:** Understanding the planning, surveying and development of watershed management programmes. |
| **9** | WET -05<br>River Basin Management | The student is expected<br>**CO1:** To learn know about forecast of river flows, routing the flow and river confluences. |

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| | | **CO2:** Tounderstand river confluences and its balance, reservoir routing and aggregation of water users. |
| | | **CO3:** Be familiar with management of different irrigation structures, water conservation and concerned technological innovations. |
| | | **CO4:** Have thorough understanding of judicious water allocation for various purposes and reservoir operation. |
| | | **CO5:** Gain knowledge about soil erosion and sedimentation, control measures and catchment treatment. |
| **10** | WET -05<br>Air pollution and Control Technologies | **CO1:** The student is expected to understand the effects of air pollutants, the metrological aspects, plume behavior and atmospheric dispersion equation. |
| | | **CO2:** Acquire knowledge on sampling techniques and analyze air quality. |
| | | **CO3:** Understand and analyze the basic mechanisms involved, working principle and design aspects of various air pollution controlling equipments. |
| | | **CO4:** Identify the methods to control sulphurdioxide and nitrogen oxide emissions. |
| | | **CO5:** Gain knowledge on vehicular emissions and auto mobiles pollution control at sources along with legal measures. |
| **11** | WET-06<br>Environmental Laboratory | Students will be able to<br>**CO1:** Perform common environmental experiments relating to water, wastewater and solid waste quality, and know which tests are appropriate for given environmental problems. |
| | | **CO2:** Statistically analyze and interpret laboratorial results. |
| | | **CO3:** Understand and use the water, wastewater and solid waste sampling procedures and sample preservations. |
| | | **CO4:** Demonstrate the ability to write clear technical laboratorial reports. |
| | | **CO5:** Understand the impact of water, wastewater and solid waste treatment on people and the environment. |
| **12** | WET-07<br>Groundwater laboratory | **CO1:** Exploring the ground water using electrical resistivity methods. |
| | | **CO2:** Exploring the ground water using seismic methods. |
| | | **CO3:** Identifying civil utility using Ground Penetrating Radar. |
| | | **CO4:** Determination of aquifer characters using pumping tests. |
| | | **CO5:** Identifying various layers of the subsurface using well lagging techniques. |
| **13** | WET- 09<br>Geospatial Applications to Water Resources | The Student is expected to<br>**CO1:** Develop the knowledge on basic concepts of remote sensing, elements involved in remote sensing, its energy sources and interaction with earth's surface features and foundations of remote sensing. |
| | | **CO2:** Comprehend the concepts of Geographical Information System (GIS), components of GIS, types and data structures. |
| | | **CO3:** Understand how the data sets are acquired and developed, and can carry out the preprocessing of data inputs. |
| | | **CO4:** Improve the learning on global positioning system (GPS), factors influencing GPS, GPS signal characteristics, mathematical model and GPS applications. |
| | | **CO5:** Identify the importance of Remote sensing and GIS in various applications like water resources, drought assessment, flood plain zoning etc., |
| **14** | WET-10<br>Irrigation Management | **CO1:** Understanding irrigation development in India and soil water plant relationships. |
| | | **CO2:** Estimation of crop water requirements. |
| | | **CO3:** Application of various irrigation methods and their design. |
| | | **CO4:** Determining of land leveling for irrigation and design of surface and subsurface field water conveyance. |
| | | **CO5:** Understanding salt problems in irrigated lands and designing suitable drainage methods. |
| **15** | WET-11<br>Advanced Wastewater Treatment Technologies | The student is expected<br>**CO1:** To know about sewerage systems, design and appurtenances. |
| | | **CO2:** Learn primary treatment of both domestic and industrial waste water along with design of waste water treatment using CAD. |
| | | **CO3:** Gain knowledge about secondary or biological treatment of waste water sludge treatment and |

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| | | disposal, low cost waste treatment systems like oxidation pond and oxidation ditch. |
| | | **CO4:** Understand various tertiary treatment systems, desalination and reverse osmosis and be familiar with different case studies on treatment of pharmaceutical and chemical industrial effluents. |
| | | **CO5:** Know about wetlands and its role in the treatment of wastewater, constructed wetlands, recycle and reuse of treated wastewater. |
| **16** | WET-12<br>Fluvial Hydraulics | The student is expected<br>**CO1:** To learn about types of flows and flow profiles, varied flow analysis and computation. |
| | | **CO2:** Understand dam break analysis, formation of jump on sloping channels, surges and its types. |
| | | **CO3:** Know about different methods of dimensional analysis and its applications. |
| | | **CO4:** Gain knowledge about different dimensionless members and their model laws and flow fields in which they are applicable, kinds of similarity and types of models and scale effect. |
| | | **CO5:** Be thorough with design of alluvial channels, different theories and their relative merits and demerits. |
| **17** | WET -12<br>Solid and Hazardous Waste Management | The student is expected<br>**CO1:** To know about solid and hazardous waste transportation, environmental laws and analysis of hazardous waste. |
| | | **CO2:** Learn waste recovery processes, cradle to grave concept of handling hazardous waste. |
| | | **CO3:** Understand disposal of hazardous waste both on surface and underground and waste minimization and hazardous waste remediation technologies. |
| | | **CO4:** Be familiar with collection transportation treatment and safe disposal of both biological and electronic waste and be conversant with reuse and recycling of wastes, recovery of by products and energy audit. |
| | | **CO5:**Gain knowledge about waste land characteristics and its remediation, different kinds of pollution of soils, remediation methods. |
| **18** | WET-12<br>Urban Hydrology | The student is expected<br>**CO1:** To know about impact of urbanization on urban runoff urban water sub systems, urban hydrologic cycle. |
| | | **CO2:** Learn modeling of storm water, probabilistic and statistical approaches of analysis of storm water data. |
| | | **CO3:** Understand urban drainage systems, sewers, components, design considerations, infiltration and exfiltration in sewers, field investigations and control measures. |
| | | **CO4:** Be well acquainted with storm water management, monitoring run off, quantity and quality, measures to mitigate damaging effects of urban storm runoff. |
| | | **CO5:** Be familiar with maintenance of urban drainage systems, pump stations, illicit connections, limitations and regulations. |
| **19** | WET-12<br>Water ResourcesSystemAnalysis | The Student is expected to<br>**CO1:** To develop objective function and constraints for various water resources optimization problems. |
| | | **CO2:** To develop linear programming models for water resources problems by using graphical and simplex and revised simplex techniques, to carry out sensitivity analysis and post optimality analysis. |
| | | **CO3:** To develop and solve forward and backward recursive dynamic programming models. |
| | | **CO4:** To understand optimization and simulation concepts and modeling and also apply simulation techniques in water resources problems. |
| | | **CO5:** To understand the fundamentals of economic theory as applied to water resources. |
| **20** | WET-13<br>Sustainable Water Resources Development | The student is expected to<br>**CO1:** To Know about frame work for sustainable development of water Resources keeping global water crises in view. |
| | | **CO2:** To learn virtual water, national water policy, national water mission along with the challenges in the development of sustainable development of water |

| | | |
|---|---|---|
| | | resources. |
| | | **CO3:** To be thorough sustainable water resources management in local, regional and global perspective including the challenges to achieve sustainable water use and management. |
| | | **CO4:** To gain knowledge regarding water economics, options for water conservation and private sector involvement in water resources management. |
| | | **CO5:** To be well versed with water act, government policies on water conservation and the measures for sustainable water resources. |
| **21** | WET-13<br>Environmental Impact Assessment | The Student is expected to<br>**CO1:** Understand the basic concept of EIA, important steps in EIA and systematic approach for using EIA as a planning Tool for Major project activities. |
| | | **CO2:** Identify the EIA methodologies and criteria for selection of EIA methodology. |
| | | **CO3:** Recognize the impact of development activities and land use on soil and groundwater resources and assess the impact significance on landfills and human habitation. |
| | | **CO4:** Identify and interpret the projects which create impacts on surface water environment, surface water quality, Impact significance on water resources project. |
| | | **CO5:** Understand the concept of environment audit, its objective, different types of audit and experience on site activities and gain technical knowledge during the field visit to industries. |
| **22** | WET -13<br>Hydropower Development | The student is expected<br>**CO1:** To know about hydropower systems, types, different load studies, pondage and storage. |
| | | **CO2:** Understand different intake structures, layout of a hydropower plant, penstock, design and anchorages. |
| | | **CO3:** Learn about water hammer, analysis, solution of linearized equations. |
| | | **CO4:** Be familiar with surge tanks, types, working, computations and stability analysis. |
| | | **CO5:** Be well acquainted with power houses, arrangement, selection of type, criteria for fixing dimensions, layout of underground power houses, stability and merits. |
| **23** | WET-14<br>Water Resources Simulation and Modeling Lab | The Student is expected to<br>**CO1:** Identify and Generate different types of maps using remote sensing and GIS software. |
| | | **CO2:** Prepare the maps for the delineated catchment area using GIS and Integrate the GIS and remote sensing maps. |
| | | **CO3:** Apply the concept of geomatics for watershed analysis and rainfall-runoff modelling using SWAT. |
| | | **CO4:** Execute evapotranspiration modeling using CROPWAT. |
| | | **CO5:** Identify harvesting structures in given area. |
| **24** | WET-15<br>Image Processing Laboratory | The students will have hands - on experience in<br>**CO1:** Importing digital satellite data into image analysis system and extraction of the area of interest (AOI). |
| | | **CO2:** Carrying out geometric correction of satellite data using ground control points (GCPs), and preparing mosaics of satellite images. |
| | | **CO3:** Generating Digital Elevation Models (DEM) and NDVI from satellite image of AOI. |
| | | **CO4:** Preparation of Land use/land cover maps using unsupervised and supervised classification algorithms. |
| | | **CO5:** Priority watershed maps, flood maps including inundated areas, Surface water body maps, drought maps and their analysis. |

| 2.6.2 Pass percentage of students | | | | |
|---|---|---|---|---|
| **Programme Code** | **Programme name** | **Number of students appeared in the final year examination** | **Number of students passed in final Semester /year examination** | **Pass Percentage** |
| M.Sc (BT) | M .Sc Biotechnology | 20 | 19 | 95 |
| M.Sc (MB) | M.Sc Microbiology | 23 | 23 | 100 |
| M.Tech (BT) | M.Tech Biotechnology | 11 | 07 | 64 |
| M.Sc | Organic Chemistry | 23 | 21 | 92% |
| M.Sc | Analytical Chemistry | 18 | 17 | 94% |
| M.Tech | Chemical Technology | 12 | 10 | 92% |
| 31D31 | M.Tech (Environmental Management) 2017 | 16 | 12 | 75% |
| 31D60 | M.Tech (Environmental Geomatics) 2017 | 17 | 15 | 88% |
| NT | M.Tech (Nano Technology) (2017-19 batch) | 12 | 09 | 75% |
| NT | M.Tech (Nano Technology) (2018-20 batch) | 12 | 10 | 83% |
| S04 | M. Pharmacy Pharmaceutical Analysis | 17 | 16 | 94% |
| S03 | M. Pharmacy Pharmaceutics | 18 | 18 | 100% |
| S07 | M. Pharmacy Pharmacognosy | 17 | 16 | 100% |
| M.Tech (SIT) 32 | M.Tech (SIT) | 13 | 12 | 92% |
| 59 | M.Tech.(Water and Environmental Technology) | 14 | 12 | 86% |

| **2.7 Student Satisfaction Survey** |
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| 2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink) |
| http://jntuhist.ac.in/feedback/ |

## CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 Promotion of Research and Facilities

3.1.1 Teachers awarded National/International fellowship for advanced studies/ research during the year

| | Name of the teacher awarded the fellowship | Name of the Award | Date of Award | Awarding Agency |
|---|---|---|---|---|
| **National** | PROF.M.V.S.S.GIRIDHAR | WMF AWARD FOR BEST CONTRIBUTION TOWARDS CONSERVATION OF WATER 2019, WATER MANAGEMENT FORUM, A PHERIPHERAL BODY OF THE INSTITUTE OF ENGINEERS (INDIA) | 2019 | WATER MANAGEMENT FORUM, A PHERIPHERAL BODY OF THE INSTITUTE OF ENGINEERS (INDIA) |
| | PROF.K.RAMAMOHAN REDDY | CO-ORDINATOR FOR THE TRAINING PROGRAM GIVEN TO EMPLOYEES OF INFOSYS COMPANY, HYDERABAD ON "INTERMEDIATE CONCEPTS OF GIS" DURING MARCH – APRIL 2019. | 2019 | CO-ORDINATOR FOR THE TRAINING PROGRAM GIVEN TO EMPLOYEES OF INFOSYS COMPANY, HYDERABAD |
| | PROF. B.VENKATESWARA RAO | VICE PRESIDENT INDIAN METEOROLOGICAL SOCIETY (IMS) Hyderabad | 2019 | INDIAN METEOROLOGICAL SOCIETY (IMS) Hyderabad |
| | PROF. B.VENKATESWARA RAO | ELECTED AS PRESIDENT FOR ASSOCIATION OF GLOBAL GROUNDWATER SCIENTISTS (AGGS) FOR THE TERM 2016-19 AND FELLOW FROM THE YEAR 2019. | 2016-2019 | ASSOCIATION OF GLOBAL GROUNDWATER SCIENTISTS (AGGS) |
| | | | | |
| **International** | NIL | NIL | NIL | NIL |

| 3.1.2 Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other fellows in the Institution enrolled during the CAY | | |
|---|---|---|
| Name of Research fellowship | Duration of fellowship | Funding agency |
| Mr. J. Srinivas (RA) | 2019-2020 | TEQIP-III |
| Mrs. K. Mounika (RA) | 2019-2020 | TEQIP-III |
| **Centre for Biotechnology (CBT)** | | |
| TEQIP JRF (2) | 2 YEARS | TEQIP |
| **Centre for Environment (CEN)** | | |
| P. Kiran Kumar (RA) | 2019-2020 | TEQIP-III |
| S. Shiva Kumar (RA) | 2019-2020 | TEQIP-III |
| M. Abhilash(RA) | 2019-2020 | TEQIP-III |
| L.Sushma (RA) | 2019-2020 | TEQIP-III |
| JagadeeshwariUppada (RA) | 2018-2020 | TEQIP-III |
| Dr.D.Bhagawan (UGC-PDF) | 2017-2022 | UGC |
| Dr.Lakshmankumar (Kothari-PDF) | 2018-2021 | UGC |
| Dr.Kavitha Varma (DBT-RA) | 2018-2020 | DBT |
| Dr.B.Naiadu (kothari PDF) | 2017-2020 | UGC |
| **Centre for Nano Science and Technology (CNST)** | | |
| T. Rakesh Kumar (JRF DST SERB CORE Project) | 2 years | DST,Govt of India |
| K.Shireesha (JRF DST SEED Project) | 2 years | DST,Govt of India |
| **Centre for Water Resources (CWR)** | | |
| Mr.V.Narasaiah (RA ) | 2018-2020 | TEQIP-III |
| Mrs.G.Hepsi Swaroopa Rani (RA) | 2018-2020 | TEQIP-III |
| Ms.Shyama Mohan (RA) | 2019-2020 | TEQIP-III |
| Mrs.P.Sowmya (RA) | 2019-2020 | TEQIP-III |
| Ms.M.Ramya (RA) | 2019-2020 | TEQIP-III |
| Mr.D.Ajay Kumar (RA) | 2019-2020 | TEQIP-III |
| **Centre for Spatial Information and Technology (CSIT** | | |
| NIL | NIL | NIL |
| **Centre for Pharmaceutical Sciences** | | |
| NIL | NIL | NIL |
| | | |

| **3.2 Resource Mobilization for Research** | | | | |
|---|---|---|---|---|
| 3.2.1 Research funds sanctioned and received from various agencies, industry and other organizations | | | | |
| Nature of the Project | Duration | Name of the funding Agency | Total grant sanctioned | Amount received during the year |
| **Centre for Biotechnology (CBT)** | | | | |
| Major projects | 2017- 2022 | DST-FIST | 59 Lakh | 0 |
| | 2019-2020 | HPCL | 27.39 | 8.79 |
| Minor Projects | 2019-2022 | AICTE –RPS | 10 Lakh | 10 lakh |
| | 2019-2020 | TEQIP-III | 2 Lakh | 2 Lakh |
| | 2019-2020 | TEQIP-III | 2 Lakh | 2 Lakh |
| | 2019-2020 | TEQIP-III | 2 Lakh | 2 Lakh |
| | 2019-2020 | TEQIP-III | 2 Lakh | 2 Lakh |
| | 2019-2020 | TEQIP-III | 2 Lakh | 1.9 Lakh |
| | 2019-2020 | TEQIP-III | 2 Lakh | 0 |
| Interdisciplinary Projects | | | | |
| Industry sponsored Projects | | | | |
| Projects sponsored by the University | NIL | | | |
| Students Research Projects *(other than compulsory by the University)* | | | | |
| International Projects | | | | |
| Any other(Specify) | | | | |
| Total | | | 108 .39 Crore | 30.69 Lakh |
| **Centre for Chemical Science & Technology (CCST)** | | | | |
| Nature of the Project | Duration | Name of the | Total grant | Amount received |

| | | | | |
|---|---|---|---|---|
| | | funding Agency | sanctioned | during the year |
| Major projects | 2019-20 | TEQIP-III | 2.0 Lakhs | 2.0 Lakhs |
| | 2019-20 | TEQIP-III | 2.0 Lakhs | 2.0 Lakhs |
| | 2019-20 | TEQIP-III | 2.0 Lakhs | 2.0 Lakhs |
| | 2019-20 | TEQIP-III | 2.0 Lakhs | 2.0 Lakhs |
| Minor Projects | NIL | | | |
| Interdisciplinary Projects | NIL | | | |
| Industry sponsored Projects | 2017-20 | Industrial R & D project | 15.00 lakhs | 15.00 Lakhs |
| Projects sponsored by the University | NIL | | | |
| Students Research Projects *(other than compulsory by the University)* | NIL | | | |
| International Projects | NIL | | | |
| Any other(Specify) | NIL | | | |
| Total | | | 23 Lakhs | |
| | | | | |
| | | | | |

**Centre for Environment (CEN)**

| Nature of the Project | Duration | Name of the funding Agency | Total grant sanctioned | Amount received during the year |
|---|---|---|---|---|
| **Major projects** | | | | |
| Carbon sequestration using anoxygenicphotoautotrphic bacteria: Potential exploitation for Climate Chenge Mitigation (Dr.Ch.Sasikala) | 2019-2021 | AICTE | 10.0lakhs | |
| Studies on Microbial ecology, diversity and their Bioprospecting for Environmental Management | 2019-2021 | AICTE ( Research Promotion Scheme) | 10.0 lakhs | |
| Biodegradation of Pharmaceuticals and Personal Care Products (PPCPs): PPCP degrading bacterial diversity and their potential application in the wastewater treatment | 2018-2020 | UGC (midcareer award grant) | 10.0lakhs | 5.0 lakhs |

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| (Dr.Ch.Sasikala) | | | | |
| **Minor Projects** | | | | |
| Monitoring Of Air Pollution And Studies On Speciation, Source Apportionment In Hyderabad Urban Environment (Dr.V.Himabindu) | 2018-2020 | TEQIP-III | 4.0 lakhs | 4.0 lakhs |
| Impact study on mission kakatiya of Telangana state-A case study of maryala water shed using geospatial technology (Dr.M.Anjireddy) | 2018-2020 | TEQIP-III | 4.0 lakhs | 4.0 lakhs |
| Anoxygenic phototrophic bacterial diversity of marine habitats of India (Dr.Ch.Sasikala) | 2018-2020 | TEQIP-III | 4.0 lakhs | 4.0 lakhs |
| Surveying and mapping of agriculture and land utilization (Dr. T. Vijayalakshmi) | 2018-2020 | TEQIP-III | 4.0 lakhs | 4.0 lakhs |
| | | | | |
| Interdisciplinary Projects | | | | |
| Industry sponsored Projects | | | | |
| Projects sponsored by the University | | | | |
| Students Research Projects *(other than compulsory by the University)* | | | | |
| | PDF kothari (UGC) | 2018-2021 | 6.8 lakhs/year | |
| | PDF kothari (UGC) | 2018-2021 | 6.8 lakhs/year | |
| | PDF kothari (UGC) | 2017-2020 | 6.8 lakhs/year | |
| | DBT RA | 2018-2020 | 6.11 lakhs/year | |

| | | | | |
|---|---|---|---|---|
| | PDF UGC (SC/ST) | 2017-2022 | 6.5 lakhs/year | |
| Treatment of wastewater using movable electrochemical reactor (Dr.D.Bhagawan) | One year | MSME | 4.0 lakhs | 0.6 lakhs |
| design of laboratory scale constructed wet lands (Sai charanMTech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| A.Pilot study on ammonical degradation of probiotic wastewater(N.Ashokk umaMTech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| treatment of industrial effluents by advanced oxidation process (PranayashriMTech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| bioagumentatiomn for composting of organic waste (monicaMTech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| extraction of microalgalpoyhydrox yalkanates (aksharaMTech project) | One year | TEQIP-III | 20,000.00 | 10,000.00 |
| Studies on Bio-Struvite formation for nutrient recovery from wastewater (HarshavardhanreddyM Tech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| Environmental impact assessment of ground water pollution of medichal using RS and GIS. (Pramod KumarMTech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| Cost effective treatment of pesticide intermediate | One year | TEQIP-III | 10,000.00 | 10,000.00 |

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|---|---|---|---|---|
| industrial waste water and MEE distillate using fenton and distillation process (A.SinduMTech project) | | | | |
| Isolation of ureolyticalkaliphilic bacteria and its application in bioconcrete (Manchukonda RakeshMTech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| Estimation and design concepts of MEP(Mechanical, Electrical and plumbing) in Eco-friendly commercial structures. (M.A.Rauf KhanMTech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| Ultrasonic flow meter and IOT (S.TanujaMTech project) | One year | TEQIP-III | 10,000.00 | 10,000.00 |
| Treatment of new leachate from municipal solid waste by using biological methods (V.ManeeshaM.Tech project) | One year | TEQIP-III | 20,000.00 | 20,000.00 |
| Enhancement of Energy recovery from sewage sludge (N.BharathM.Tech project) | One year | TEQIP-III | 20,000.00 | 20,000.00 |
| Impact of urbanization on ambient air quality of HMDA (P.HarishM.Tech Project) | One year | TEQIP-III | 20,000.00 | 20,000.00 |
| International Projects | | | | |
| Any other(Specify) | | | | |
| Total | | | | |
| **Centre for Nano Science and Technology (CNST)** | | | | |
| Nature of the Project | Duration | Name of the | Total grant | Amount received |

| | | funding Agency | sanctioned | during the year |
|---|---|---|---|---|
| Major project | 2019-20 | AICTE-TEQIP-III | 4.5 Lakhs | 4.5 Lakhs |
| Major project | 2019-20 | AICTE-TEQIP-III | 6 Lakhs | 6 Lakhs |
| Major project | 2019-20 | DST SERB Core Funded | 41.84 Lakhs | 41.84 Lakhs |
| Major project | 2019-20 | DST-SEED | 44.07 Lakhs | 44.07 Lakhs |
| Major project | 2019-20 | AICTE MODROBS | 10 Lakhs | 10 Lakhs |
| Minor Project | 2018-19 | TEQIP-III | 2 Lakhs | 2 Lakhs |
| Minor Project | 2019-20 | TEQIP-III | 2 Lakhs | 2 Lakhs |
| Minor Project | 2019-20 | TEQIP-III | 2 Lakhs | 2 Lakhs |
| Minor Project | 2018-19 | TEQIP-III | 2 Lakhs | 2 Lakhs |
| Minor Project | 2019-20 | TEQIP-III | 2 Lakhs | 2 Lakhs |
| Minor Project | 2019-20 | TEQIP-III | 2.5 Lakhs | 2.5 Lakhs |
| Interdisciplinary Projects | - | - | - | - |
| Industry sponsored Projects | 2018-19 | Academic & Industrial Collaborative Project Agastya Agro Limited | 14.2 Lakhs | 14.2 Lakhs |
| Projects sponsored by the University | - | - | | |
| Students Research Projects *(other than compulsory by the University)* | - | - | - | - |
| International Projects | - | - | - | - |
| Any other(Specify) | - | - | - | - |
| Total | | | **133.11 Lakhs** | **133.11 Lakhs** |
| | | | | |

**Centre for Pharmaceutical Sciences (CPS)**

| Nature of the Project | Duration | Name of the funding Agency | Total grant sanctioned | Amount received during the year |
|---|---|---|---|---|
| Major projects | | Nil | | |
| Minor Projects | | Nil | | |
| Interdisciplinary Projects | | Nil | | |
| Industry sponsored Projects | | Nil | | |
| Projects sponsored by the University | | Nil | | |
| Students Research Projects *(other than compulsory by the University)* | | Nil | | |
| International Projects | | Nil | | |
| Any other(Specify) | | Nil | | |
| Total | | | | |

| Centre for Spatial Information and Technology (CSIT) | | | | |
|---|---|---|---|---|
| Nature of the Project | Duration | Name of the funding Agency | Total grant sanctioned | Amount received during the year |
| Major projects | | | | |
| Minor Projects | 02 years | TEQIP-III | Two lakhs | 01 lakh |
| Interdisciplinary Projects | | | | |
| Industry sponsored Projects | | | | |
| Projects sponsored by the University | | | | |
| Students Research Projects *(other than compulsory by the University)* | | | | |
| International Projects | | | | |
| Any other(Specify) | | | | |
| Total | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Centre for Water Resources (CWR) | | | | |
|---|---|---|---|---|
| Nature of the Project | Duration | Name of the funding Agency | Total grant sanctioned | Amount received during the year |
| Major projects | 2 Years | Earth Watch Institute India | 39.9 Lakhs | 17 lakhs |
| Minor Projects | 2 Years | Eco-Wash | 6.65 Lakhs | - |
| Minor Projects | 2 Years | TEQIP-III | 2.0 Lakhs | - |
| Minor Projects | 2 Years | TEQIP-III | 2.0 Lakhs | - |
| Minor Projects | 2 Years | TEQIP-III | 2.0 Lakhs | - |
| Minor Projects | 2 Years | TEQIP-III | 2.3 Lakhs | - |
| Interdisciplinary Projects | | | | |
| Industry sponsored Projects | | | | |
| Projects sponsored by the University | | | | |
| Students Research Projects *(other than compulsory by the University)* | | | | |
| International Projects | | | | |
| Any other(Specify) | | | | |
| Total | | | | |

**3.3 Innovation Ecosystem**

3.3.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the CAY

| Title of Workshop/Seminar | Name of the Dept. | Date(s) |
|---|---|---|
| **Centre for Chemical Science & Technology (CCST)** | | |
| **Advances in Chemical Reactor Technologies** | **Centre for Chemical Sciences & Technology, IST, JNTUH** | **06th December,2019** |
| **Centre for Environment (CEN)** | | |
| Two weeks training programme on geospatial technologies and field visit | **centre for environment** | **10th- 23rdjune 2019** |
| one week training programme on EIA | **centre for environment** | 19th-25th august 2019 |
| **Centre for Pharmaceutical Sciences (CPS)** | | |
| Pharmaceutical Regulatory affairs and Intellectual Property rights | Centre for Pharmaceutical sciences | 1-08-2019 to 14-08-2019 |
| **Centre for Spatial Information and Technology (CSIT)** | | |
| Webinar on Advances in Geo-spatial Technologies | CSIT, IST, JNTUH | 05-06-2020 |
| **Centre for Biotechnology (CBT)**<br>**Centre for Nano Science and Technology (CNST)**<br>**Centre for Water Resources (CWR)** | | |
| **NIL** | | |

| 3.3.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year | | | | |
|---|---|---|---|---|
| Title of the innovation | Name of the Awardee | Awarding Agency | Date of Award | Category |
| **Centre for Environment (CEN)** | | | | |
| Best Researcher award – 2019 | Dr.A.Vamshi Krishna Reddy | Allinov Research & Development Pvt. Ltd., (India) | 2019 | Research |
| Dr.Rajendra Prasad Memorial Prize "Investigation into the Propensity of Coal for Spontaneous Heating in Stockpiles" Presented by The Institute of Engineers (India) | Dr. R. Ravi Varma, | The Institute of Engineers (India)T | Jan 2020 | **Academic** |
| **Reasearch excellence award** | G. Shankaraiah | Institute of scholars | March 2020 | **Research** |
| **Centre for Biotechnology (CBT)<br>Centre for Chemical Science & Technology (CCST)<br>Centre for Nano Science and Technology (CNST)<br>Centre for Pharmaceutical Sciences (CPS)<br>Centre for Spatial Information and Technology (CSIT)<br>Centre for Water Resources (CWR)** | | | | |
| NIL | NIL | NIL | NIL | NIL |

| 3.3.3 No. of Incubation centre created/start-ups incubated on campus during the CAY | | |
|---|---|---|
| Incubation Centre | Name | Sponsored by |
| **Centre for Chemical Science & Technology (CCST)** | | |
| Advanced synthesis lab | Advanced synthesis laboratory | Group of laboratories(PS3 laboratory, Dr. Reddys Laboratories, Mylan Laboratories, Hetero Drugs, MSN Labs, Aurobindo Pharma Industry) |
| **Centre for Biotechnology (CBT)<br>Centre for Environment (CEN)<br>Centre for Nano Science and Technology (CNST)<br>Centre for Pharmaceutical Sciences (CPS)<br>Centre for Spatial Information and Technology (CSIT)<br>Centre for Water Resources (CWR)** | | |
| NIL | NIL | NIL |

| Name of the Start-up | Nature of Start-up | Date of commencement |
|---|---|---|

| | | |
|---|---|---|
| **Centre for Chemical Science & Technology (CCST)** | | |
| Ps3 laboratories | Organic synthesis | November 2017 |
| **Centre for Environment (CEN)** | | |
| MSME | Treatment of wastewater using movable electrochemical reactor | 2018-2019 |
| | | |

**3.4 Research Publications and Awards**

3.4.1 Ph. Ds awarded during the CAY

| Name of the Department | No. of Ph. Ds Awarded |
|---|---|
| Centre for Biotechnology | 22 |
| Centre for Chemical Science & Technology | 15 |
| Centre for Environment | 6 |
| Centre for Pharmaceutical sciences | 44 |
| Centre for Water Resources | 01 |
| | |

3.4.2 Research Publications in the Journals notified on UGC website during the CAY

| | Department | No. of Publications | Average Impact Factor, if any |
|---|---|---|---|
| | | | |
| International | Centre for Biotechnology | 19 | 2 |
| International | Centre for Chemical Science & Technology | 22 | 4.2 |
| International | Centre for Environment | 28 | 2.66 |
| International | Centre for Nano science and Technology | 15 | 2.0178 |
| National | Centre for Pharmaceutical sciences | 02 | |
| International | Centre for Pharmaceutical sciences | 35 | - |
| National | Centre for Spatial Information and Technology | 01 | **2.05** |
| National | Centre for Water Resources | 1 | |
| International | Centre for Water Resources | 6 | 5.045 |

3.4.3 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the CAY

| Department | No. of publication |
|---|---|
| CENTRE FOR BIOTECHNOLOGY | 1 (Book chapter) |
| Centre for Chemical Science & Technology | 02 (Books) |
| Centre for environment | International conference publications 4 |
| Centre for Nanoscience and Technology | **03** |
| Centre for Water resources | National-21<br>International-5 |
| | |

3.4.4 Patents published/awarded during the CAY

| Patent Details | Patent status **Published/Filed** | Patent Number | Date of Award |
|---|---|---|---|
| Centre for Biotechnology (CBT)<br><br>Ch.Sathvika and Dr.M.Lakshmi Narasu<br><br>Isolation and characterization of anticancer compound from Sesuvium portulacastrum (L.) L.201941007336 (IN) | Published/<br><br>PCT International Search report declared that the invention is new, it involves an inventive step and is capable for industrial application | PCT/IN2020 /050142 | 01-06-2020 |
| | | | |
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**3.4.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index**

**Centre for Biotechnology**

| Title of the paper | Name of the author | Title of the journal | Year of publication | Citation Index | Institutional affiliation as mentioned in the publication | Number of citations excluding self citations |
|---|---|---|---|---|---|---|
| Synthesis, structural and antimicrobial studies of half-sandwich ruthenium, rhodium and iridium complexes containing nitrogen donor Schiff- | Agreeda Lapasam, Venkanna Banothu, Uma Addepally, Mohan Rao Kollipara | Journal of Molecular Structure, | Sep 2019 | 0 | | 0 |
| Surface modification and non-covalent functionalization of single- walled carbon nanotubes and their characterization (IF-1.81) | K. Naga Lalitha , G. Krishna Mohan and A. Uma, | International Journal of Pharmaceutical Sciences and Research | aug 2019 | 0 | | 0 |
| Variable structural bonding modes and antibacterial studies of thio semi carbazone ligands of ruthenium, rhodium, and iridium metal complexes, | Lathewdeipor Shadap, Venkanna Banothu, Uma Adepally, Sanjay Adhikari, Mohan Rao Kollipara | Journal of Coordination Chemistry | 2019 | 0 | | 0 |
| Investigation of Mode of Action of Anti Bacterial Activity of *Salacia Oblonga* Extract Against Drug Resistant Pathogen | Anjaneyulu Musini and Archana Giri | Brazilian Archives of Biology and Technology | 2019 | 0 | JNTUH | 0 |
| Response surface optimization of in vitro culture medium for enhanced production of the therapeutically important secondary metabolite – withaferin a. | Sukanya M S and Archana Giri | British Journal of Pharmaceutical and Medical Research | 2019 | 0 | JNTUH | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Production of Therapeutically Valuable Withaferin A From In Vitro Propagated Withania Somnifera (L.) Dunal | | International Journal of Scientific Research in Biological Sciences | 2020 | 0 | JNTUH | 0 |
| Influence of paper industry effluents on soil cellulose and amylase activity | Lavuida Saida ans K venkateshwa reddy | Asian journal of microbiology and biotechnology | 2019 | 0 | JNTUH | 0 |
| Composting of Sweet Sorghum Bagasse and its Impact on Plant Growth Promotion. | Subramaniam Gopalakrishnan, Vadlamudi Srinivas, Ashok Kumar, Akula V. Umakanth, Uma Addepally, Pinnamaneni Srinivasa Rao, | Sugar Tech | Jan-Feb 2020 | 0 | | 0 |
| Development of transgenic cotton (Narasimha) using triple gene Cry2Ab-Cry1F-Cry1Ac construct conferring resistance to lepidopteran pest | Sumalatha katta, Ashwini talakayala, Malireddy k reddy, Uma addepally, Mallikarjuna garladinne; | Journal of bioscience | 2020 | 0 | JNTUH | 0 |
| Discovery of novel pyrido-pyrrolidine hybrid compounds as alphaglucosidase inhibitors and alternative agent for control of type 1 Diabetes; | Tania Luthra, Venkanna Banothu, Uma Adepally, Krishna Kumar, Swathi M, Saikat Chakrabarti, Srinivas R. Maddi d, Subhabrata Sen; | European Journal of Medicinal Chemistry | 2020 | 0 | JNTUH | 0 |

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|---|---|---|---|---|---|---|
| Evaluation of ethanol fermentation efficiency of sweet sorghum syrups produced by integrate d dual-membrane system | Yerra Kanakaraju, Addepally Uma, Vani Gandham, Kiran Kumari Palety, S. Sridhar, A. V. Umakanth; | Bioprocess and Biosystems Engineering | 2020 | 0 | JNTUH | 0 |
| In vitro biological evaluation of half-sandwich platinum-group metal complexes containing benzothiazole moiety. | Lathewdeipo r Shadap, Venkanna Banothu, Emma Pinder, Roger M Phillips, Werner Kaminsky & Mohan Rao Kollipara. | Journal of Coordination Chemistry | 2020 | 0 | JNTUH | 0 |
| Assembly of benzothiazine and triazole in a single molecular entity: Synthesis of -oxicam derived novel molecules as potential antibacterial / anti-cancer agents. | P. Neeraja, S. Srinivas, Ven kanna Banothu, B. Sridhar, K. Mukkanti, Pr amod Kumar Dubey& Sarbani Pal. | Mini-Reviews in Medicinal Chemistry | 2020 | 1 | JNTUH | 1 |
| Synthesis of half sandwich platinum group metal complexes containing pyridyl benzothiazole hydrazones: Study of bonding modes and antimicrobial activity. | Lincoln Dkhar, Venkanna Banothu, Werner Kaminsky & Mohan Rao Kollipara. | Journal of Organometallic Chemistry | 2020 | 1 | JNTUH | 1 |
| Fluorenone Schiff base derivative complexes of ruthenium, rhodium and iridium exhibiting efficient antibacterial | Mohan Rao Kollipara, Latewdeipor Shadap, Venkanna | Journal of Organometallic Chemistry | 2020 | 0 | JNTUH | 0 |

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|---|---|---|---|---|---|---|
| activity and DNA-binding affinity. | Banothu, Nipanshu Agarwal & Krishna Mohan Poluri. | | | | | |
| Design and synthesis of oxaprozin-1,3,4-oxadiazole hybrids as potential anticancer and antibacterial agents. | Parsharamulu Rayam, Naveen Polkam, Naveen Kuntala, Venkanna Banothu, Hasitha Shilpa Anantaraju, Yogeeswari Perumal, Sridhar Balasubramanian & Jaya Shree Anireddy. | Journal of Heterocyclic Chemistry | 2020 | 0 | JNTUH | 0 |
| Enhanced photocatalytic and antibacterial activity of ZnO/Ag nanostructure synthesized by Tamarindus indica pulp extract. | Dayakar Thatikayala, Venkanna Banothu, Jisoo Kim, Dong Su Shin, S Vijayalakshmi & Jinsub Park. | Journal of Materials Science: Materials in Electronics. | | 0 | JNTUH | 0 |
| Half-sandwich arene ruthenium, rhodium and iridium thiosemicarbazone complexes: synthesis, characterization and biological evaluation | Agreeda Lapasam, Venkanna Banothu, Uma Addepally & Mohan Rao Kollipara. | Journal of Chemical Science | 2020 | 1 | JNTUH | 1 |

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|---|---|---|---|---|---|---|
| Ruthenium, rhodium and iridium complexes containing pyrimidine based thienyl pyrazoles: Synthesis and antibacterial studies. | Agreeda Lapasam, Lbaniewkor L. Mawnai, Venkanna Banothu, Werner Kaminsky & Mohan Rao Kollipara. | Journal of Organometallic Chemistry | 2020 | 0 | JNTUH | 0 |
| **Centre for Chemical Science & Technology** | | | | | | |
| Title of the paper | Name of the author | Title of the journal | Year of publication | Citation Index | Institutional affiliation as mentioned in the publication | Number of citations excluding self citations |
| Cross-dehydrogenative C(sp3)-C(sp3) coupling via C-H activation using magnetically retrievable ruthenium-based photoredox nanocatalyst under aerobic conditions | Prof. A. Jaya Shree | Chemistry Communications (Camb)<br>2019 20;55 (51):7402-7405. | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Design synthesis and evaluation of 4H-Chromene-4-one analogues as potential Anti-bacterial and Anti-fungal agents | Prof. A. Jaya Shree | Chemistry. Biology Letter. | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Hunig's base catalyzed synthesis of new 1-(2, 3-dihydro-1H-inden-1-yl)-3-aryl urea/thiourea derivatives as potent antioxidants and 2HCK enzyme growth inhibitors | Prof. A. Jaya Shree | Bioorganic Chemistry, 103558 | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| QbD-based development of an extraction procedure for simultaneous quantification of telmisartan, amlodipine | Prof. A. Jaya Shree | Biomedical Chromatography | 2019 | | Centre for Chemical Sciences &Technology, Institute of | |

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|---|---|---|---|---|---|---|
| besylate and chlorthalidone in combination complex matrix formulation | | | | | Science and Technology, JNTUH. | |
| Development of a Novel and Scalable Process for the Synthesis of a Key Cangrelor Intermediate | Prof. A. Jaya Shree | Organic Preparations and Procedures International 51 (6), 530-536 | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Design and synthesis of oxaprozin-1,3,4-oxadiazole hybridsas potential anticancer and antibacterial agents | Prof. A. Jaya Shree | Journal of Heterocyclic Chemistry2019 DOI: 10.1002/jhet.3842 | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Stereoselective Synthesis for Potential Isomers of Ticagrelor Key Starting Material | Prof. A. Jaya Shree | Journal of Heterocyclic Chemistry 56 (10), 2866-2872 | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| ZnO Nanocatalyst Mediated Convergent Synthesis of Highly Substituted Imidazole and Imidazole-derived Bi-heterocyclic Scaffolds as Potential Antibacterial Agents | Prof. A. Jaya Shree | Journal of Heterocyclic Chemistry 56 (9), 2398-2410 | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Novel 7-substituted Fluoroquinolone Citrate Conjugates as Powerful Antibacterial and Anticancer Agents: | Prof. A. Jaya Shree | Current Organic Chemistry 23 (18), 1992-2003 | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |

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|---|---|---|---|---|---|---|
| A study on structural characterization of degradation products of cangrelor using LC/QTOF/MS/MS and NMR | Prof. A. Jaya Shree | Journal of pharmaceutical and biomedical analysis | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Synthesis of new heteroaryl substituted morpholinetagged triazines and evaluation of their cytotoxic activity, | Prof. A. Jaya Shree | Letters in Drug Design & Discovery, | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Synthesis, X-ray crystal structure, Hirshfeld surface analysis, DFT, MESP and molecular docking studies of 2-(4-bromophenyl)-1-(3-fluoro-4-methylphenyl)-4, 5-diphenyl-1H-imidazole | Prof. A. Jaya Shree | Chemical Data Collections | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Design, Synthesis, and Antimicrobial Activity of Novel 6-Oxopyrimidin-1(6H)-yl Benzamide Derivatives | Prof. A. Jaya Shree | Russian Journal of General Chemistry | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Development of a Simple, Highly Selective RP-LC Method for the Quantification of Diastereomers and Other Related Substances of Ezetimibe Using Multivariate Analysis | Prof. A. Jaya Shree | Journal of Chromatographic Science 57(1), 71–80 | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH | |
| Synthesis, Docking, and Bioavailability of 2′ - Oxo - 3 - phenylspiro[cyclopropane-1,3′-indoline]-2,2-dicarbonitriles as Antibacterial Agents In | Prof. A. Jaya Shree | Journal of Heterocyclic Chemistry 56, 209-217. | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and | |

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|---|---|---|---|---|---|---|
| Silico | | | | | Technology, JNTUH. | |
| Synthesis and Biological Evaluation of New Ibuprofen-1, 3, 4-oxadiazole-1, 2, 3-triazole Hybrids | Prof. A. Jaya Shree | Journal of Heterocyclic Chemistry 56, 296-305. | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Synthesis of Novel Diaziridinyl Quinone Isoxazole Hybrids and Evaluation of Their Anti-Cancer Activity as Potential Tubulin-Targeting Agents | Prof. A. Jaya Shree | Drug Res (Stuttg), 69(07), 406-414 | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, | |
| Cross-dehydrogenative C (sp3)-C (sp3) coupling via CH activation using magnetically retrievable ruthenium-based photoredox nanocatalyst under aerobic conditions | Prof. A. Jaya Shree | Chemical Communications | 2019 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Design synthesis and evaluation of 4H Chromene-4-one analogues as potential Anti-bacterial and Anti-fungal agents | Prof. A. Jaya Shree | Chemical Biology Letters | 2020 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH. | |
| Hunigs base catalyzed synthesis of new 1-(2,3-dihyro-1H-inden-1-yl)-3-aryl urea/thioureaderivaties as potent antioxidants and 2HCK enzyme groth inhibitors | Prof. A. Jaya Shree | Bioorganic Chemistry | 2020 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH | |
| Design, synthesis and evaluation of 4H-Chromene-4-one analogues as potential Anti-bacterial and Anti- | Prof. A. Jaya Shree | Chemical Biology Letters | 2020 | | Centre for Chemical Sciences & Technology, Institute of | |

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|---|---|---|---|---|---|---|
| fungal agents | | | | | Science and Technology, JNTUH | |
| A study on structural characterization of degradation produts of cangrel or using LC/QTOF/MS/MS and NMR | Prof. A. Jaya Shree | Journal of Pharmaceutical and Biomedical Analysis | 2020 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH | |
| synthesis Docking and Bioavailabilty of 20-oxo-3-phenylspiro [cyclopropane-1,30-indoline]-2,--dicarbonitrileas antibacterial agents on silico | Prof. A. Jaya Shree | Journal of Heterocyclic Chemistry | 2020 | | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH | |
| **Centre for Environment (CEN)** | | | | | | |
| Title of the paper | Name of the author | Title of the journal | Year of publication | Citation Index | Institutional affiliation as mentioned in the publication | Number of citations excluding self citations |
| Phycoremediation of sewage contaminated lake water using mircoalgae bacteria co-culture | kavithavarma, kirankumar,s. vijayakrishna, V.Himabindu | water, air and soil pollution (accepted May 2020)<br>ISSN: 1573-2932 | 2020<br>(IF1.79) | 0 | | 0 |
| *Gimesiachilikensis* sp. nov., a haloalkalitolerantplanctomycetes isolated from Chilika lagoon and emended description of the genus Gimesia | Dhanesh Kumar; Kumar Gaurav; Sreya PK; Shabbir A; Jagadeeshwari U; SasikalaChand RamanaCh.V. | Int. J. Syst. Evol. Microbiol.<br>(in press) | 2020<br>[IF=2.166] | 0 | | 0 |
| *Roseimaritimasediminicola* sp.nov., a new member in Planctomycetaceae | Dhanesh Kumar., Gaurav, K., | Int. J. Syst. Evol. Microbiol.<br>(in press) | 2020<br>[IF=2.166] | 0 | | 0 |

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|---|---|---|---|---|---|---|
| isolated from Chilika lagoon. Int J SystEvolMicrobiol. (Under revision) | Deepshikha, K, Jagadeeshwari, U, Sasikala, Ch. And Ramana, Ch.V | | | | | |
| *Paracoccusaeridae* sp. nov., an indole producing bacterium isolated from the rhizosphere of an orchid, *Aeridesmaculosa* | Anusha Rai; Smita N; Suresh G; Shabbir A; Deepshikha G; SasikalaCh; RamanaCh.V. | Int. J. Syst. Evol. Microbiol. (in press)<br><br>(In press doi:10.1099/ijsem.0.003962) | 2020<br><br>[IF=2.166] | 0 | | 0 |
| Taxogenomics resolved the conflict of the genus *Rhodobacter*: A two and half decades pending thought to reclassify the genus *Rhodobacter* | Indu, Sasikala, Ch and Ramana, Ch. V. | Frontiers in Microbiology 10:2480. doi:10.3389/fmicb.2019.02480 | 2020<br><br>(IF=4.259) | 4 | | 4 |
| Rhodobactersediminicola sp. nov., isolated from a fresh water pond of Gujarat | G Suresh, Dhanesh Kumar, A Krishnaiah, SasikalaCh | International Journal of Systematic and Evolutionary Microbiology<br><br>70(2):1294-1299<br><br>ISSN: 14665026, | 2020<br>(IF:2.166) | | | |
| Rhodomicrobium lacus sp. nov., an alkalitolerent bacterium isolated from Umiam lake, Shillong, India | G Suresh, Dhanesh Kumar, Jagadeeshwari Uppada, SasikalaCh | International Journal of Systematic and Evolutionary Microbiology<br><br>70(1):662-667<br><br>ISSN: 14665026, | 2020<br><br>(IF:2.166) | | | |
| *Afifellaaestuarii*, sp. nov., a novel phototrophic bacterium isolated from rhizosphere soil of a xerophytes. | SailajaBuddhi, G Suresh, Deepshikha Gupta, SasikalaCh | Int. J. Syst. Evol. Microbiol.<br><br>(In Press; doi:10.1099/ijsem.0.003756) | 2019<br><br>[IF=2.166] | 0 | | 0 |

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| Chryseobacteriumcandidae sp. nov., isolated from a yeast (Candida tropicalis) | B Indu, G Kumar, N Smita, A Shabbir, SasikalaCh | Int. J. Syst. Evol. Microbiol. (In Press; doi:10.1099/ijsem.0.003716) | 2020 [IF=2.166]. | 0 | | 0 |
| Geospatial Technology for mapping and analysis of social and infrastructural facilities at village level: a case study of Chinnapendyala village | M.Abhilash, T.Vijayalakshmi | Modeling Earth Systems and Environment (accepeted April 2020) ISSN: 2363-6211 | 2020 (IF:0.83) | 0 | | 0 |
| Hydrogen production by PEM water electrolysis- A Review | S. Shiva Kumar, V.Himabindu, | Materials for energy Technologies, 2(3), 442-454, ISSN: 2589-2991 https://doi.org/10.1016/j.mset.2019.03.002 | 2019 | 69 | | 69 |
| Emerging contaminant (Triclosan) identification and its treatment - A Review, | ShrutiJagini, Srilatha Konda, Bhagawan D, **V.Himabindu,** | SN Applied Sciences, 1:640, ISSN: 2523-3971. https://doi.org/10.1007/s42452-019-0634-x | 2019 | 2 | | 2 |
| Fluoride removal from Groundwater using cylindrical electrocoagulation reactor, | Bhagawan.D, Saritha.P, Shankaraiah.G, **Himabindu.V**, | Journal of Water Chemistry and Technology, Vol. 41, No. 3, pp. 164–169, ISSN: 1934-936X. | 2019 (IF.0.504) | 1 | | 1 |
| Biomass Production from Microalgae Chlorella grown in Sewage, Kitchen Wastewater using Industrial CO2 emissions: Comparative study. | P.Kiran Kumar, Vijayakrishna S, S.Swaminaidu, Bhagawan D, Kavitaverma, **Himabindu V** | Carbon Resources Conversion, 2, 126–133, ISSN: 2588-9133 | 2019 | 6 | | 6 |

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|---|---|---|---|---|---|---|
| Enhancement of Biohydrogen production from Distillery Spent Wash Effluent Using Electro-Coagulation Process, | Vijaya Krishna S, Kiran Kumar P, KavitaVerma, Bhagawan D, **Himabindu V**, Lakshmi Narasu M, Radhika Singh, | Energy, Ecology and Environment, ISSN: 2363-7692, DOI: 10.1007/s40974-019-00122-9. | 2019 | | | |
| Effect of biohythane production from distillery spent wash with addition of landfill leachate and sewage wastewater, | Vijaya Krishna Saranga, Kiran Kumar P, KavitaVerma, Bhagawan D, **Himabindu.V**, Lakshmi Narasu M, | Applied Biochemistry and Biotechnology, ISSN: 0273-2289.https://doi.org/10.1007/s12010-019-03087-x. | 2019 (IF:2.14) | 1 | | 1 |
| Performance evaluation of different advanced processes for treating chloro pesticide intermediate industrial wastewater | Srilatha K, Bhagawan D, Shankaraiah G, Kiran Kumar P, Himabindu V*, Srinivasulu S, | Sustainable Water Resources Management, **5**,1833–1846, ISSN: 2363-5045 https://doi.org/10.1007/s40899-019-00336-z | 2019 | | | |
| Boron-doped carbon nanoparticles supported palladium as an efficient hydrogen evolution electrode in PEM water electrolysis | S.Shiva Kumar, V.Himabindu, | Renewable Energy, 146, 2281-2290 ISSN: 0960-1481 https://doi.org/10.1016/j.renene.2019.08.068 | 2019 (IF:5.439) | 3 | | 3 |

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| 1 | Dr.B.Venkateswara Rao | Prof, CWR, IST, JNTUH | 179 | 7 | 5 | |
| 2 | Dr.K.Rama mohan Reddy | Prof, CWR, IST, JNTUH | 38 | 3 | 1 | |
| 3 | Dr.C.Sarala | Prof, CWR, IST, JNTUH | 75 | 3 | 2 | |
| 4 | Dr.MVSS.Giridhar | Prof, CWR, IST, JNTUH | 144 | 4 | 1 | |
| Total | | | 436 | 17 | 9 | |
| **Title of the paper** | **Name of the author** | **Title of the journal** | **Year of publication** | **Citation Index** | **Institutional affiliation as mentioned in the publication** | **Number of citations excluding self citations** |
| Groundwater flow modeling and prognostics of Kandivalasa river sub-basin, Andhra Pradesh, India | Dr.B.Venkateswara Rao | Environment, Development and Sustainability, Springer Nature | 2019 | | CWR, IST, JNTUH | |
| Evaluation of the impact of high resolution winds on the coastal waves events | Dr.B.Venkateswara Rao | Journal of Earth System Sciences | 2019 | | CWR, IST, JNTUH | |
| Role of Kaolinisation in the Khondalitic Aquifers of Eastern Ghats of (India) | Dr.B.Venkateswara Rao | Advances in Sustainable and Environmental Hydrology, Hydrogeology, | 2019 | | CWR, IST, JNTUH | |

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| | | Hydrochemistry and Water Resources | | | | |
| A facile synthesis of implantation of silver nanoparticles on oxygen-functionalized multi-walled carbon nanotubes: structural and antibacterial activity. | Dr.K.Ramamohan Reddy | Springer Nature Applied Sciences | 2020 | | CWR, IST, JNTUH | |
| Design of Water Treatment Plant for Bhainsa Town | Dr.C.Sarala | Journal of Emerging Technologies and Innovative Research | 2019 | | CWR, IST, JNTUH | |
| Study of Spectral Reflectance Pattern of Red Soils under varying Moisture Conditions | Dr.M.V.S.S. Giridhar | International Journal for Research in Applied Science & Engineering Technology | 2019 | | CWR,IST,JNTUH | |
| Identifying Land use land cover changes using geo-spatial technologies and their influence on the Eco-system in west zone of Hyderabad | Dr.M.V.S.S. Giridhar | Journal of Emerging Technologies and Innovative Research | 2019 | | CWR, IST, JNTUH | |
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**3.4.6 h-Index of the Institutional Publications during the CAY. (based on Scopus/ Web of science)**

**Centre for Biotechnology (CBT)**

| Title of the paper | Name of the author | Title of the journal | Year of publication | h-index | Number of citations excluding self-citations | Institutional affiliation as mentioned in the publication |
|---|---|---|---|---|---|---|
| Synthesis, structural and antimicrobial studies of half-sandwich ruthenium, rhodium and iridium complexes containing nitrogen donor Schiff-base ligands (IF-2.011) | Agreeda Lapasam, Venkanna Banothu, Uma Addepally, Mohan Rao Kollipara | Journal of Molecular Structure, | 2020 | 89 | 0 | JNTUH |
| Surface modification and non-covalent functionalization of single- walled carbon nanotubes and their 0characterization (IF- 1.81) | K. Naga Lalitha , G. Krishna Mohan and A. Uma, | International Journal of Pharmaceutical Sciences and Research | 2019 | 4.35 | 0 | JNTUH |
| Variable structural bonding modes and antibacterial studies of thio semi carbazone ligands of ruthenium, rhodium, and iridium metal complexes, | Lathewdeipor Shadap, Venkanna Banothu, Uma Adepally, Sanjay Adhikari, Mohan Rao Kollipara | Journal of Coordination Chemistry | 2020 | 45 | 0 | JNTUH |
| Composting of Sweet Sorghum Bagasse and its Impact on Plant Growth Promotion; | Subramaniam Gopalakrishnan, Vadlamudi Srinivas, Ashok Kumar, Akula V. Umakanth, Uma Addepally, Pinnamaneni Srinivasa Rao, | Sugar Tech | 2020 | 24 | 0 | JNTUH |

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| Investigation of Mode of Action of Anti Bacterial Activity of *Salacia Oblonga* Extract Against Drug Resistant Pathogen | Anjaneyulu Musini and Archana Giri | Brazilian Archives of Biology and Technology | 2019 | 40 | 0 | JNTU H |
| Development of transgenic cotton (Narasimha) using triple gene Cry2Ab-Cry1F-Cry1Ac construct conferring resistance to lepidopteran pest; | Sumalatha katta, Ashwini talakayala, Malireddy k reddy, Uma addepally, Mallikarjuna garladinne; | Journal of bioscience | 2020 | 69 | | JNTUH |
| Discovery of novel pyrido-pyrrolidine hybrid compounds as alphaglucosidase inhibitors and alternative agent for control of type 1 Diabetes | Tania Luthra, Venkanna Banothu, Uma Adepally, Krishna Kumar, Swathi M, Saikat Chakrabarti, Srinivas R. Maddi d, Subhabrata Sen; | European Journal of Medicinal Chemistry | 2020 | 151 | | JNTUH |
| Evaluation of ethanol fermentation efficiency of sweet sorghum syrups produced by integrated dual-membrane system; | Yerra Kanakaraju, Addepally Uma, Vani Gandham, Kiran Kumari Palety, S. Sridhar, A. V. Umakanth; | Bioprocess and Biosystems Engineering | 2020 | 59 | | JNTUH |
| Synthesis, Chemotherapeutic Screening and Docking Studies of NSAID Inserted Peptide-Triazole Hybrid Molecules. | Suryapeta Srinivas, Papigani Neeraja, Kuntala Naveen, Venkanna Banothu, Pramod K Dubey, Khagga Mukkanti & Sarbani Pal. | Chemistry Select | 2020 | 25 | 0 | JNTUH |
| *In vitro* biological evaluation of half-sandwich platinum-group metal | Lathewdeipor Shadap, Venkanna Banothu, Emma Pinder, Roger M Phillips, Werner | Journal of Coordination Chemistry | 2020 | 48 | 0 | JNTUH |

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| complexes containing benzothiazole moiety. | Kaminsky & Mohan Rao Kollipara. | | | | | |
| Assembly of benzothiazine and triazole in a single molecular entity: Synthesis of -oxicam derived novel molecules as potential antibacterial / anti-cancer agents. | P. Neeraja, S. Srinivas, Venkanna Banothu, B. Sridhar, K. Mukkanti, Pramod Kumar Dubey& Sarbani Pal. | Mini-Reviews in Medicinal Chemistry | 2020 | 85 | 1 | JNTUH |
| Synthesis of half sandwich platinum group metal complexes containing pyridyl benzothiazole hydrazones: Study of bonding modes and antimicrobial activity. | Lincoln Dkhar, Venkanna Banothu, Werner Kaminsky & Mohan Rao Kollipara. | Journal of Organometallic Chemistry | 2020 | 121 | 1 | JNTUH |
| Fluorenone Schiff base derivative complexes of ruthenium, rhodium and iridium exhibiting efficient antibacterial activity and DNA-binding affinity. | Mohan Rao Kollipara, Latewdeipor Shadap, Venkanna Banothu, Nipanshu Agarwal & Krishna Mohan Poluri. | Journal of Organometallic Chemistry | 2020 | 121 | 0 | JNTUH |
| Design and synthesis of oxaprozin-1,3,4-oxadiazole hybrids as potential anticancer and antibacterial agents. | Parsharamulu Rayam, Naveen Polkam, Naveen Kuntala, Venkanna Banothu, Hasitha Shilpa Anantaraju, Yogeeswari Perumal, Sridhar Balasubramanian & Jaya Shree Anireddy. | Journal of Heterocyclic Chemistry | 2020 | 57 | 0 | JNTUH |
| Enhanced photocatalytic and | Dayakar Thatikayala, Venkanna Banothu, Jisoo | Journal of Materials | 2020 | 67 | 0 | JNTUH |

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| antibacterial activity of ZnO/Ag nanostructure synthesized by Tamarindus indica pulp extract. | Kim, Dong Su Shin, S Vijayalakshmi & Jinsub Park. | Science: Materials in Electronics. | | | | |
| Ruthenium, rhodium and iridium complexes containing pyrimidine based thienyl pyrazoles: Synthesis and antibacterial studies. | Agreeda Lapasam, Lbaniewkor L. Mawnai, Venkanna Banothu, Werner Kaminsky & Mohan Rao Kollipara. | Journal of Organometallic Chemistry | 2020 | 121 | 0 | JNTUH |
| Biogenic synthesis of silver nanoparticles mediated by Theobroma cacao extract: Enhanced antibacterial and photocatalytic activities. | Thatikayala, D., Jayarambabu, N., Banothu, V., Ballipalli, C. & Venkateswara Rao, K. | Journal of Materials Science: Materials in Electronics | 2019 | 67 | 1 | JNTUH |
| Synthesis of New Chiral (R)-BINOL Derivatives under Microwave Irradiation and Evaluation of Their Antibacterial and α-Glucosidase Inhibitory Activity. | Ashok Reddy Ankireddy, Kalyani Paidikondala, Rambabu Gundla, Tuniki Balaraju, Ramakanth Pagadala&Venkanna Banothu. | Chemistry Select | 2019 | 25 | 0 | JNTUH |
| Half sandwich platinum group metal complexes of thiourea derivative ligands with benzothiazole moiety possessing anti-bacterial activity and colorimetric sensing: Synthesis and characterisation. | L Shadap, S Diamai, V Banothu, DPS Negi, U Adepally, W Kaminsky & MR Kollipara. | Journal of Organometallic Chemistry | 2019 | 121 | 7 | JNTUH |

| Centre for Chemical Science & Technology (CCST) | | | | | | |
|---|---|---|---|---|---|---|
| Title of the paper | Name of the author | Title of the journal | Year of publication | h-index | Number of citations excluding self-citations | Institutional affiliation as mentioned in the publication |
| Data given in 3.4.5 | Dr. Anireddy Jayashree | Data given in 3.4.5 | Data given in 3.4.5 | 9 | 412 | Centre for Chemical Sciences & Technology, Institute of Science and Technology, JNTUH |
| | Dr. P S Sai Prasad | | | 46 | 6855 | |
| . | Dr. Kotaiah Naik | | | 6 | 92 | |
| **Centre for Environment (CEN)** | | | | | | |
| **Title of the paper** | **Name of the author** | **Title of the journal** | **Year of publication** | **h-index** | **Number of citations excluding self-citations** | **Institutional affiliation as mentioned in the publication** |
| Phycoremediation of sewage contaminated lake water using mircoalgae bacteria co-culture | kavithavarma, kirankumar,s. vijayakrishna, V.Himabindu | water, air and soil pollution (accepted May 2020)<br>ISSN: 1573-2932 | 2020<br>(IF1.79) | 0 | | Phycoremediation of sewage contaminated lake water using mircoalgae bacteria co-culture |
| *Gimesiachilikensis* sp. nov., a haloalkalitolerantplanctomycetes isolated from Chilika lagoon and emended description of the genus Gimesia | Dhanesh Kumar; Kumar Gaurav; Sreya PK; Shabbir A; Jagadeeshwari U; SasikalaChand RamanaCh. V. | Int. J. Syst. Evol. Microbiol.<br>(in press) | 2020<br>[IF=2.166] | 0 | | *Gimesiachilikensis* sp. nov., a haloalkalitolerantplanctomycetes isolated from Chilika lagoon and emended |

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| | | | | | | description of the genus Gimesia |
| *Roseimaritimasedimini cola* sp.nov., a new member in Planctomycetaceae isolated from Chilika lagoon. Int J SystEvolMicrobiol. (Under revision) | Dhanesh Kumar., Gaurav, K., Deepshikha, K, Jagadeeshwari, U, Sasikala, Ch. And Ramana, Ch.V | Int. J. Syst. Evol. Microbiol. (in press) | 2020 [IF=2.166] | 0 | | *Roseimariti masediminic ola* sp.nov., a new member in Planctomyce taceae isolated from Chilika lagoon. Int J SystEvolMic robiol. (Under revision) |
| *Paracoccusaeridae* sp. nov., an indole producing bacterium isolated from the rhizosphere of an orchid, *Aeridesmaculos a* | Anusha Rai; Smita N; Suresh G; Shabbir A; Deepshikha G; SasikalaCh; RamanaCh.V. | Int. J. Syst. Evol. Microbiol. (in press) (In press doi:10.1099 /ijsem.0.00 3962) | 2020 [IF=2.166] | 0 | | *Paracoccusa eridae* sp. nov., an indole producing bacterium isolated from the rhizosphere of an orchid, *Aeri desmaculosa* |
| Taxogenomics resolved the conflict of the genus *Rhodobacter*: A two and half decades pending thought to reclassify the genus *Rhodobacter* | Indu, Sasikala, Ch and Ramana, Ch. V. | Frontiers in Microbiolo gy 10:2480. doi:10.3389 /fmicb.201 9.02480 | 2020 (IF=4.259 ) | 4 | | Taxogenomi cs resolved the conflict of the genus *Rhodo bacter*: A two and half decades pending thought to reclassify the genus *Rhodo bacter* |
| Rhodobactersediminic ola sp. nov., isolated from a fresh water | G Suresh, Dhanesh Kumar, A Krishnaiah, SasikalaCh | Internation al Journal of Systematic | 2020 (IF:2.166) | | | Rhodobacter sediminicola sp. nov., isolated |

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| pond of Gujarat | | and Evolutionary Microbiology 70(2):1294-1299 ISSN: 14665026, | | | | from a fresh water pond of Gujarat |
| Rhodomicrobium lacus sp. nov., an alkalitolerent bacterium isolated from Umiam lake, Shillong, India | G Suresh, Dhanesh Kumar, JagadeeshwariUppada, SasikalaCh | International Journal of Systematic and Evolutionary Microbiology 70(1):662-667 ISSN: 14665026, | 2020 (IF:2.166) | | | Rhodomicrobium lacus sp. nov., an alkalitolerent bacterium isolated from Umiam lake, Shillong, India |
| *Afifellaaestuarii*, sp. nov., a novel phototrophic bacterium isolated from rhizosphere soil of a xerophytes. | SailajaBuddhi, G Suresh, Deepshikha Gupta, SasikalaCh | Int. J. Syst. Evol. Microbiol. (In Press; doi:10.1099/ijsem.0.003756) | 2019 [IF=2.166] | 0 | | *Afifellaaestuarii*, sp. nov., a novel phototrophic bacterium isolated from rhizosphere soil of a xerophytes. |
| Chryseobacteriumcandidae sp. nov., isolated from a yeast (Candida tropicalis) | B Indu, G Kumar, N Smita, A Shabbir, SasikalaCh | Int. J. Syst. Evol. Microbiol. (In Press; doi:10.1099/ijsem.0.003716) | 2020 [IF=2.166]. | 0 | | Chryseobacteriumcandidae sp. nov., isolated from a yeast (Candida tropicalis) |
| Geospatial Technology for mapping and analysis of social and infrastructural facilities | M.Abhilash, T.Vijayalakshmi | Modeling Earth Systems and | 2020 (IF:0.83) | 0 | | Geospatial Technology for mapping and analysis |

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| at village level: a case study of Chinnapendyala village | | Environment (accepeted April 2020)<br><br>ISSN: 2363-6211 | | | | of social and infrastructural facilities at village level: a case study of Chinnapendyala village |
| Hydrogen production by PEM water electrolysis- A Review | S. Shiva Kumar, V.Himabindu, | Materials for energy Technologies, 2(3), 442-454, ISSN: 2589-2991<br><br>https://doi.org/10.1016/j.mset.2019.03.002 | 2019 | 69 | | Hydrogen production by PEM water electrolysis- A Review |
| Emerging contaminant (Triclosan) identification and its treatment - A Review, | ShrutiJagini, Srilatha Konda, Bhagawan D, **V.Himabindu,** | SN Applied Sciences, 1:640, ISSN: 2523-3971. https://doi.org/10.1007/s42452-019-0634-x | 2019 | 2 | | Emerging contaminant (Triclosan) identification and its treatment - A Review, |
| Fluoride removal from Groundwater using cylindrical electrocoagulation reactor, | Bhagawan.D, Saritha.P, Shankaraiah.G, **Himabindu.V**, | Journal of Water Chemistry and Technology, Vol. 41, No. 3, pp. 164–169, ISSN: 1934-936X. | 2019 (IF.0.504) | 1 | | Fluoride removal from Groundwater using cylindrical electrocoagulation reactor, |
| Biomass Production from Microalgae Chlorella grown in Sewage, Kitchen Wastewater using Industrial CO2 emissions: Comparative study. | P.Kiran Kumar, Vijayakrishna S, S.Swaminaidu, Bhagawan D, Kavitaverma, **Himabindu V** | Carbon Resources Conversion, 2, 126–133, ISSN: 2588-9133 | 2019 | 6 | | Biomass Production from Microalgae Chlorella grown in Sewage, Kitchen |

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| | | | | | | Wastewater using Industrial CO2 emissions: Comparative study. |
| Enhancement of Biohydrogen production from Distillery Spent Wash Effluent Using Electro-Coagulation Process, | Vijaya Krishna S, Kiran Kumar P, KavitaVerma, Bhagawan D, **Himabindu V**, Lakshmi Narasu M, Radhika Singh, | Energy, Ecology and Environment, ISSN: 2363-7692, DOI: 10.1007/s40974-019-00122-9. | 2019 | | | Enhancement of Biohydrogen production from Distillery Spent Wash Effluent Using Electro-Coagulation Process, |
| Effect of biohythane production from distillery spent wash with addition of landfill leachate and sewage wastewater, | Vijaya Krishna Saranga, Kiran Kumar P, KavitaVerma, Bhagawan D, **Himabindu.V**, Lakshmi Narasu M, | Applied Biochemistry and Biotechnology, ISSN: 0273-2289.https://doi.org/10.1007/s12010-019-03087-x. | 2019 (IF:2.14) | 1 | | Effect of biohythane production from distillery spent wash with addition of landfill leachate and sewage wastewater, |
| Performance evaluation of different advanced processes for treating chloro pesticide intermediate industrial wastewater | Srilatha K, Bhagawan D, Shankaraiah G, Kiran Kumar P, Himabindu V*, Srinivasulu S, | Sustainable Water Resources Management, **5**,1833–1846, ISSN: 2363-5045 https://doi.org/10.1007/s40899-019-00336-z | 2019 | | | Performance evaluation of different advanced processes for treating chloro pesticide intermediate industrial wastewater |
| Boron-doped carbon nanoparticles supported palladium as | S.Shiva Kumar, V.Himabindu, | Renewable Energy, | 2019 (IF:5.439 | 3 | | Boron-doped carbon |

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| an efficient hydrogen evolution electrode in PEM water electrolysis | | 146, 2281-2290<br><br>ISSN: 0960-1481<br><br>https://doi.org/10.1016/j.renene.2019.08.068 | ) | | | nanoparticles supported palladium as an efficient hydrogen evolution electrode in PEM water electrolysis |
| Assessment of Natural Radioactivity in Soils around the Proposed Uranium Mining Site of Lambapur–Peddagattu and Seripally, India | T Raghavendra, K Vishwaprasad, G Kalyani, T Vijayalakshmi, V Himabindu, J Arunachalam, P Padmasavithri, Vinod Kumar, RM Tripathi | ournal of the Geological Society of India | 2019 | 1 | | Assessment of Natural Radioactivity in Soils around the Proposed Uranium Mining Site of Lambapur–Peddagattu and Seripally, India |
| Risk assessment due to intake of trace metals through the ingestion of groundwater around proposed uranium mining areas of Nalgonda district, Telangana, India | T Raghavendra, SUB Ramakrishna, D Srinivasulu, T Vijayalakshmi, V Himabindu, J Arunachalam | Applied Water Science (2020) 10:9 https://doi.org/10.1007/s13201-019-1089-3 | 2019 (IF:0.82) | | | Risk assessment due to intake of trace metals through the ingestion of groundwater around proposed uranium mining areas of Nalgonda district, Telangana, India |
| Pyrolysis of Garden Waste: Comparative Study of *Leucaenaleucocephala* (Subabul Leaves) and *Azadirachtaindica* (Neem Leaves) Wastes | K Srilatha, D Bhagawan, V Himabindu | Waste Valorisation and Recycling, 293-306,<br><br>DOI: 10.1007/978-981-13- | 2019 (IF:2.358 ) | | | Pyrolysis of Garden Waste: Comparative Study of *Leucaenaleucocephala* (Subabul |

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| | | 2784-1_28 | | | | Leaves) and *Azadirachtaindica* ( Neem Leaves) Wastes |
| Precursor-feeding and altered-growth conditions reveal novel blue pigment production by *Rubrivivaxbenzoatilyticus* JA2 | Lakshmi PrasunaMekala, Mujahid Mohammed, SasikalaChintalapati, VenkataRamanaChintalapati | Biotechnology letters 41:813–822 | 2019 (IF: 1.846) | | | Precursor-feeding and altered-growth conditions reveal novel blue pigment production by *Rubrivivaxbenzoatilyticus* JA2 |
| Phylogenetic diversity of sulfate-reducing bacteria of sediments of Chilika Lake, India, determined through analysis of the dissimilatory sulfite reductase (*dsr AB*) gene | Sri SasiJyothsnaTadinada, Rahul Kamidi, Saikat Dutta, SasikalaChintalapati, VenkataRamanaChintalapati | 3 Biotech, 9:134, https://doi.org/10.1007/s13205-019-1655-2 | 2019 (IF: 2.351) | | | Phylogenetic diversity of sulfate-reducing bacteria of sediments of Chilika Lake, India, determined through analysis of the dissimilatory sulfite reductase (*dsr AB*) gene |
| Transcriptome analysis of hopanoid deficient mutant of Rhodopseuodomonaspalustris TIE-1 | Tushar D Lodha, B Indu, SasikalaCh | Microbiological research, 218, 108-117 https://doi.org/10.1016/j.micres.2018.10.009 | 2019 (3.701) | | | Transcriptome analysis of hopanoid deficient mutant of Rhodopseuodomonaspalustris TIE-1 |
| New insights into aniline toxicity: Aniline exposure | Chintalapati VR Mohammed M, Mekala LP, Chintalapati S | Journal of Hazardous Materials | 2019 (IF:7.650) | 1 | | New insights into aniline toxicity: |

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| triggers envelope stress and extracellular polymeric substance formation in Rubrivivaxbenzoatilyticus JA2. | | Materials385121571 E pub 2019 Nov 3.<br><br>(In Press DOI : 10.1016/j.jhazmat.2019.121571) | | | | Aniline exposure triggers envelope stress and extracellular polymeric substance formation in Rubrivivaxbenzoatilyticus JA2. |
| Emerging Concepts in Bacterial Taxonomy | Anusha Rai, N Smita, G Deepshikha, K Gaurav, K Dhanesh, G Suresh, ChSasikala, Ch V Ramana | Microbial Diversity in Ecosystem Sustainability and Biotechnological Applications, 3-22<br><br>DOI: 10.1007/978-981-13-8315-1_1 | 2019 | | | Emerging Concepts in Bacterial Taxonomy |
| iTRAQ-based quantitative proteomics reveals insights into metabolic and molecular responses of glucose-grown cells of Rubrivivaxbenzoatilyticus JA2 | Deepshikha Gupta, Mujahid Mohammed, Lakshmi PrasunaMekala, SasikalaChintalapati, VenkataRamanaChintalapati | Journal of proteomics<br><br>194:49-59.<br><br>doi: 10.1016/j.jprot.2018.12.027<br><br>DOI: 10.1016/j.jprot.2018.12.027 | 2019 (IF:3.53) | | | iTRAQ-based quantitative proteomics reveals insights into metabolic and molecular responses of glucose-grown cells of Rubrivivaxbenzoatilyticus JA2 |
| Pyomelanin production: Insights into the incomplete aerobic l-phenylalanine catabolism of a photosynthetic | VenkataRamanaChinthalapatia Lakshmi PrasunaMekalaa, MujahidMohammeda, SasikalaChinthalapati | International Journal of Biological Macromole | 2019 (IF:4.78) | | | Pyomelanin production: Insights into the incomplete aerobic l- |

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| bacterium, Rubrivivaxbenzoatilyticus JA2 | | cules<br><br>126:755-764.<br><br>doi: 10.1016/j.ijbiomac.2018.12.142. | | | | phenylalanine catabolism of a photosynthetic bacterium, Rubrivivaxbenzoatilyticus JA2 |
| **Centre for Nano Science and Technology (CNST)** | | | | | | |
| **Title of the paper** | **Name of the author** | **Title of the journal** | **Year of publication** | **h-index** | **Number of citations excluding self-citations** | **Institutional affiliation as mentioned in the publication** |
| Investigation of various Mg (x) Fe (1− x) 2O4 (x= 0.1, 0.5 and 0.9) nanostructures as a resistive and flexible LPG sensor | SolletiGoutham, P Jeevankumar, N Jayarambabu, A Saineetha, Kishor Kumar Sadasivuni, SatishBykkam, Kalagadda Venkateswara Rao | Materials Science and Engineering: B | 2020 | - | - | a Centre for Nano Science and Technology, JNT University Hyderabad, Kukatpally 500085, Telangana, India b School of Physics, University of Hyderabad, Telangana, India c Center for Advanced Materials, Qatar University, P.O. Box 2713, Doha, Qatar |

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| Impact of Green Synthesized Metal Oxide Nanoparticles on Seed Germination and Seedling Growth of *Vignaradiata* (Mung Bean) and *Cajanuscajan* (Red Gram) | Pooja Rani, GurjotKaur, K Venkateswara Rao, Jagpreet Singh, MohitRawat | Journal of Inorganic and Organometallic Polymers and Materials | 2020 | 43 | - | Department of Nanotechnology, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab 140 406, India 2 Centre of Nanoscience and Technology, Institution of Science and Technology, Jawaharlal Nehru Technological University, Hyderabad 500085, India |
| NiO nanoparticles-decorated conductive polyanilinenanosheets for amperometric glucose biosensor | SaraswathiKailasa, B Geeta Rani, M SaiBhargava Reddy, N Jayarambabu, P Munindra, Shubham Sharma, K Venkateswara Rao | Materials Chemistry and Physics | 2020 | 143 | | 1Center for Nanoscience and Technology, Institute of Science and Technology, Jawaharlal Nehru Technological University, Hyderabad, Telangana State, |

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| | | | | | | 500085, India. 2 School of Nanotechnology, Institute of Science and Technology, Jawaharlal Nehru Technological University, Kakinada, Andhra Pradesh State, 533003, India. 3CSIR-Central Leather Research Institute, Regional Centre for Extension and Development, India. |
| High sensitive polyanilinenanosheets (PANINS)@ rGO as non-enzymatic glucose sensor | SaraswathiKailasa, R Kiran Kumar Reddy, M SaiBhargava Reddy, B Geeta Rani, HussenMaseed, R Sathyavathi, K Venkateswara Rao | Journal of Materials Science: Materials in Electronics | 2020 | 67 | - | Center for Nanoscience and Technology, Institute of Science and Technology, Jawaharlal Nehru Technological,University,Telangana State, |

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| | | | | | | Hyderabad 500085, India 2 School of Engineer ingSciences and Techno logy, University of Hyderab ad, Gachibowli ,Hyderabad 500046, India 3 Department of Physics, KoneruLak shmaiah Education Foundation (KLEF), Hyderabad 500075, India |
| Green synthesis of Cu nanoparticles using Curcuma longa extract and their application in antimicrobial activity | N Jayarambabu, A Akshaykranth, T Venkatappa Rao, K Venkateswara Rao, R Rakesh Kumar | Materials Letters | 2020 | 135 | - | 1Departme nt of Physics, National Institute of Technology , Warangal-506004, India 2Centre for NanoScienc e and Technology ,IST,JNTU-Hyderabad, Kukatpally-500085, India |

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| Utilization of rapid prototyping technology for the fabrication of an orthopedic shoe inserts for foot pain reprieve using thermo-softening viscoelastic polymers: A novel experimental approach | Shubham Sharma, Jujhar Singh, Harish Kumar, Abhinav Sharma, VivekAggarwal, Amoljit Singh Gill, N Jayarambabu, SaraswathiKailasa, K Venkateswara Rao | Measurement and Control | 2020 | 20 | - | 1 Department of Mechanical Engineering and RCED, CSIR-Central Leather Research Institute, Jalandhar, India 2 Department of Mechanical Engineering, I.K. Gujral Punjab Technical University, Kapurthala, India 3 Department of Mechanical Engineering, National Institute of Technology Delhi, Delhi, India 4 Centre for Nano Science and Technology, Institute of Science & Technology (IST), Jawaharlal Nehru Technologi |

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| | | | | | | cal University Hyderabad (JNTUH), Hyderabad, India |
| A high-performance low-temperature LPG detection by MgFe 2 O 4/BiVO 4 chemiresistive sensor | P Munindra, M SaiBhargava Reddy, B Geeta Rani, N Jayarambabu, SaraswathiKailasa, P SrinivasaSubba Rao, K Venkateswara Rao | Journal of Materials Science: Materials in Electronics | 2020 | 67 | - | School of Nanotechnology, Jawaharlal Nehru Technological University Kakinada, Kakinada 533003, India 2 Centre for Nano Science and Technology, Jawaharlal Nehru Technological University Hyderabad, Hyderabad 500085, India 3 Department of Physics, National Institute of Technology, Warangal 506004, India |
| Study of band gap engineering in graphene based | K Vagdevi, B Jyothirmai, V Radhika Devi, K Venkateswara Rao | AIP Conference | 2019 | 64 | - | GokarajuRangaraju Institute of |

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| Twisted PolyanilineNanobelts @ rGO for Room Temperature NO2 Sensing | SaraswathiKailasa, M SaiBhargava Reddy, B Geeta Rani, HussenMaseed, K Venkateswara Rao | Materials Letters | 2019 | 135 | | a Center for Nanoscience and Technology, Institute of Science and Technology, Jawaharlal Nehru Technological University Hyderabad, Telangana State 500085, India b School of Engineering Sciences and Technology, University of Hyderabad, Gachibowli, Hyderabad 500046, |

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| Micro-structural, optical and vibrational spectra analysis of Lead sulphide, Cadmium doped PbS and Strontium doped PbS nano-structured thin films synthesized through Successive Ionic Layer Adsorption and Reaction technique for solar cell and infrared detector sensor applications | Shubham Sharma, A VenkataDhanunjaya Reddy, NaradalaJayarambabu, N Vikram Manoj Kumar, A Saineetha, SaraswathiKailasa, K Venkateswara Rao | Materials Today: Proceedings | 2019 | 27 | - | a C.S.I.R.-Central Leather Research Institute, R.C.E.D., Leather Complex, Jalandhar 144021, India b S.R.I.T., Rotarypuram Village, B K Samudram Mandal, Anantapur 515701, India c Centre for Nanoscience and Technology, IST, JNTUH, Kukatpally, Hyderabad 500085, India |
| Ultrasonication assisted thermal exfoliation of graphene-tin oxide nanocomposite material for supercapacitor | Sai Ram Eedulakanti, Anil Kumar Gampala, K Venkateswara Rao, Ch Shilpa Chakra, VenkataramanaGedela, RajenderBoddula | Materials Science for Energy Technologies | 2019 | - | - | a Centre for Nanoscience and Technology, IST, JNTUH, India bNanospan India Private Limited, Gachibowli, |

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| Synthesis and characterization of Titanium dioxide nanopowder for various energy and environmental applications | Shubham Sharma, A VenkataDhanunjaya Reddy, NaradalaJayarambabu, N Vikram Manoj Kumar, A Saineetha, K Venkateswara Rao, SaraswathiKailasa | Materials Today: Proceedings | 2019 | 27 | - | a C.S.I.R. Central Leather Research Institute, R.C.E.D., Leather Complex, Jalandhar 144021, India b S.R.I.T., Rotarypuram Village, B K Samudram Mandal, Anantapur 515701, India c Centre for Nanoscience and Technology, IST, JNTUH, Kukatpally, |

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| Hydrothermal approached 1-D molybdenum oxide nanostructures for high-performance supercapacitor application | R Kiran Kumar Reddy, SaraswathiKailasa, B Geetha Rani, N Jayarambabu, Hayashi Yasuhiko, G VenkataRamana, K Venkateswara Rao | SN Applied Sciences | 2019 | - | - | 1<br>Center for Nano Science and Technology, Institute of Science and Technology,<br>Jawaharlal Nehru Technological University, Hyderabad, India. 2<br>Graduate School of Natural Sciences and Technology, Okayama University,<br>Okayama, Japan. 3<br>Nanospan India Pvt. Ltd., Hyderabad, India. |
| Comparative gas sensing analysis of green and chemically reduced graphene oxide | Venkateswara Rao Kalagadda4 B Geeta Rani, M SaiBhargava Reddy, KailasaSaraswathi, HassenMaseed, K | Materials Research Express | 2019 | 27 | - | aCenter for Nanoscience and Technology, Institute of Science |

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| Biogenic synthesis of silver nanoparticles mediated by Theobroma cacao extract: enhanced antibacterial and photocatalytic activities | DayakarThatikayala, N Jayarambabu, VenkannaBanothu, Chandra BabuBallipalli, Jinsub Park, K Venkateswara Rao | Journal of Materials Science: Materials in Electronics | 2019 | 67 | - | Department of Electronics and Computer Engineering, College of Engineering, Hanyang University, Wangsimniro 222, Seoul 04763, Korea 2 Centre for Nano Science and Techno |

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| | | | | | | of Technology, Shenzhen 518055, China |
| MgO@$CeO_2$ chemiresistive flexible sensor for room temperature LPG detection | M SaiBhargava Reddy, SaraswathiKailasa, B Geeta Rani, N Jayarambabu, K Bikshalu, P Munindra, K Venkateswara Rao | Journal of Materials Science: Materials in Electronics | 2019 | 67 | - | Center for Nano Science & Technology, Institute of Science & Technology, Jawaharlal Nehru Technological University Hyderabad, Hyderabad, Telangana 500085, India 2 Department of Electronics & Communication Engineering, Kakatiya University, Warangal, Telangana 506009, India |
| A review on porous polymer composite materials for multifunctional electronic applications | Kishor Kumar Sadasivuni, John-John Cabibihan, KalimDeshmukh, SolletiGoutham, Mohammad KhaleelAbubasha, Jyoti Prasad Gogoi, IgorsKlemenoks, Gita | Polymer-Plastics Technology and Materials | 2019 | - | - | a Center for Advanced Materials, Qatar University, Doha, Qatar; b Mechanical and |

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| | Sakale, BhogillaSatyaSekhar, PS Rama Sreekanth, Kalagadda Venkateswara Rao, Maris Knite | | | | | Industrial Engineering Department, Qatar University, Doha, Qatar; c Department of Physics, B.S. AbdurRahman Crescent Institute of Science and Technology, Chennai TN, India; d Centre for Nano Science and Technology, JNT University Hyderabad, Kukatpally, Hyderabad, Telangana State, India; e Department of Physics, The Assam Kaziranga University, Jorhat, India; f Institute of Technical Physics, Faculty of Materials Science and Applied Chemistry, |

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| | | | | | | Riga Technical University, Riga, LV, Latvia; g Faculty of Mechanical Engineering, Indian Institute of Information Technology Design and Manufacturing, Kurnool, Andhra Pradesh, India; h Department of Mechanical Engineering, VIT-AP University, Amaravati, Guntur, Andhra Pradesh, India |
| Template assisted electro-chemical synthesis and micro-structural characterization of copper and copper selenide based polymer thin films as nano ensembles applications | A Saineetha, Shubham Sharma, A VenkataDhanunjaya Reddy, NaradalaJayarambabu, N Vikram Manoj Kumar, K Venkateswara Rao, K Vasantha Kumar | Materials Today: Proceedings | 2019 | 27 | - | a Centre for Nanoscience and Technology, IST, JNTUH, Kukatpally, Hyderabad 500085, India b C.S.I.R. – Central Leather Research Institute, |

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| | | | | | | R.C.E.D., Leather Complex, Jalandhar 144021, India c S.R.I.T., Rotarypuram Village, B K Samudram Mandal, Anantapur 515701, India |
| Synthesis of multiferroic BiFeO3 microcrystals for photocatalytic activity and stability performance | BeerelliRajitha, Kalagadda Venkateswara Rao, R Padma Suvarna | Materials Today: Proceedings | 2019 | 27 | | aDepartment of Physics, Jawaharlal Nehru Technological University Ananthapur, Ananthapuramu 515002, India b Center for Nanoscience and Technology, Institute of Science and Technology, Jawaharlal Nehru Technological University Hyderabad, Telangana State |

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| | | | | | | 500085, India |
| Study of acoustic and thermodynamic factors of synthesized ZnO-water nanofluid by ultrasonic technique | M SaiBhargava Reddy, N Jayarambabu, R Kiran Kumar Reddy, SaraswathiKailasa, K Venkateswara Rao | Materials Today: Proceedings | 2019 | 27 | | Centre for Nano Science and Technology, Institute of Science and Technology, Jawaharlal Nehru Technological University, Hyderabad 500085, India |
| Enhancing adsorption capacity of nano-adsorbents via surface modification: A review | M Manyangadze, NHM Chikuruwo, TB Narsaiah, CS Chakra, M Radhakumari, G Danha | South African Journal of Chemical Engineering | 2020 | 11 | | a Chemical and Process Systems Engineering Department, Harare Institute of Technology, Harare, Zimbabwe b Industrial and Manufacturing Engineering Department, Harare Institute of Technology, Harare, Zimbabwe c Department of |

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| | | | | | | of Science & Technology, Private Bag 16, Palapye, Botswana |
| Ultrasonication assisted thermal exfoliation of graphene-tin oxide nanocomposite material for supercapacitor | Sai Ram Eedulakanti, Anil Kumar Gampala, K Venkateswara Rao, Ch Shilpa Chakra, VenkataramanaGedela, RajenderBoddula | Materials Science for Energy Technologies | 2019 | - | - | a Centre for Nanoscience and Technology, IST, JNTUH, India<br>bNanospan India Private Limited, Gachibowli, Hyderabad, India<br>c CAS Key Laboratory of Nanosystem and Hierarchical Fabrication, National Center for Nanoscience and Technology, Beijing 100190, PR China |
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| Integrating and introducing CERN and NCBI data science to understand<br><br>quantum realm computations | Raghavendra Rao Sankaramanchi1, V Kamakshi Prasad2, Kumara Chandra Singarapu2, Tejaswini Thallapalli2, Sandeep Sagar2, Shilpa Chakra Chidurala3, Upender Gaddam4, and Shrawan Kumar5 | IOP Conf. Series: Journal of Physics: Conf. Series | 2019 | 70 | - | CSE, JNTUH, Hyderabad, India Hexagon Capability Centre India Pvt.Ltd, Hyderabad, India<br><br>CNST, IST, JNTUH, Hyderabad, India<br><br>CSE, Vardhaman College of Engineerin |

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| Adsorption Studies And Fluoride Removal From Aqueous<br>Solutions By Graphene Oxide - Zinc Oxide Nanocomposite | C. S. CHAKRAa* , V. S. SAI KUMARb , S. MADHURIa , P. ANUSHAa , T. R. KUMARa , D. RAKESH | Digest Journal of Nanomaterials and Biostructures | 2019 | 40 | | aCentre for Nano Science and Technology , Institute of Science and Technology , Jawaharlal Nehru Technological University Hyderabad, Hyderabad 500085, Telangana, India bDepartment of Physics,Guru Nanak Institute of Technology , Ibrahimpatnam, 501506, Telangana, India |
| **Centre for Pharmaceutical Sciences (CPS)** | | | | | | |
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| Surface modification and non-covalent functionalization of single- walled carbon nanotubes and their characterization | K. Naga Lalitha , G. Krishna Mohan and A. Uma | Internation al Journal of Pharmaceut ical Sciences and Research | 2019 | | | Centre for Pharmaceutic al sciences, IST, JNTUH |
| Design and Synthesis of Indole Pyrimidine Scaffolds as Potential KSP Inhibitors and Anticancer Agents | Radhika Chelamalla, AjithaMakula | Current Enzyme Inhibition. | 2019 | 9 | 397 (i10+9) | Centre for Pharmaceutic al sciences, IST, JNTUH |
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| STUDY TO FIND THE BEST EXTRACTION SOLVENT FOR USE WITH CUCUMBER PEEL (CUCUMIS SATIVUS) FOR HIGH NEUROPROTECTIV E ACTIVITY IN COGNITIVE IMPAIRED RATS | GirijaPashikanti 1, MakulaAjitha 2, GoverdhanPuchchakayala | Journal of Scientific Research in Pharmacy | 2019 | | | Centre for Pharmaceutic al sciences, IST, JNTUH |
| NEUROPROTECTIV E EFFECT OF VARIOUS PHYTOCHEMICALS AND ITS POTENTIAL APPLICATION OF THREE MEDICINAL PLANTS IN NEURODEGENERAT IVE DISEASES | GirijaPashikanti , MakulaAjitha , GoverdhanPuchchakayala | Journal of Pharma Research | 2019 | | | Centre for Pharmaceutic al sciences, IST, JNTUH |

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| Transdermal delivery of fluvastatin loaded nanoemulsion gel: Preparation, characterization and in vivo anti-osteoporosis activity | Ramandeep Kaur, M Ajitha | European Journal of Pharmaceutical Sciences | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Formulation of transdermal nanoemulsion gel drug delivery system of lovastatin and its in vivo characterization in glucocorticoid induced osteoporosis rat model | Ramandeep Kaur, MakulaAjitha | Journal of Drug Delivery Science and Technology | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
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| Method development and validation of Quantifying related substances in paracetamol and mefenamic acid GFOS by RP-HPLC | S Shobha Rani | International Journal Of research and analytical Reviews | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Method development and validation for the Quantitative estimation of ivabradine by RP-HPLC in Bulk and marketed formulation with forced degradation studies | S Shobha Rani | International Journal of research | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| E.Coli AB 1157 susceptability test, MTT assay on MCF-& and HeLa cell lines of root and leaf fractions of *Viburnum* species | K Ponnudurai,KPrabhu,S Shobha Rani and M. Srinivasa Murthy | Indian journal of traditional Knowledge | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Development,In-vitro and exvivo Evaluation of Muco-adhesive Buccal Patches of candesartan cilexetil, | Kumara Swamy Samanthula,Shobha Rani Satla, AgaiahgoudBairi | Research Journal of Pharma and technology | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |

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| A Review on Novel liposomes and its applications | M.Sunitha Reddy, Harika Ramineni | International journal of research and analytical reviews | 2019 | 7 | 187(i10=7) | Centre for Pharmaceutical sciences, IST, JNTUH |
| Use of natural polymers over synthetic polymers in tablet formulations: A review | M.Sunitha Reddy, T.N.Purnima, | Journal of emerging technologies and innovative research | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Formulation development and evaluation of immediate release film coated tablets of Pazopanib Hydrochloride | Shaik Arif Mohiuddin, M.Sunitha Reddy | International Journal of research and analytical reviews(IJRAR) | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
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| Formulation and evaluation of gastroretentiveinsitu floating gels of Olmesartan medoxomilCubosomes | M.Sunitha Reddy, K.Shobha Rani | International Journal of research and analytical reviews(IJRAR) | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Formulation and evaluation of Methyl Prednisolone Acetate Parenteral Suspension | Phani Kishore, M.Sunitha Reddy | IJRAR | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |

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| Niosomes –Novel Drug delivery system-A Review | M.Sunitha Reddy, Pranaya D | World journal of pharmacy and pharmaceutical sciences | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Nasal Drug Delivery Systems: A Review | M.Sunitha Reddy, ManasaTadi | World journal of Pharmaceuticals Research | 2019 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| A Review on Classification, Characterization, Synthesis, Application and Toxicity of Nanoparticles | M.Sunitha Reddy, Pallavi Sunduru | European Journal of Biomedical and Pharmaceutical Sciences | 2020 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| A Review on 'Synthesis of Silver Nanoparticles by Biological Approach" | M.Sunitha Reddy, Keerthi Reddy Sunkari | International Journal of Pharmaceutical Sciences Review and Research | 2020 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Bilayer Tablets: A Novel Technology: A Review | Sunitha Reddy M*, Bharath Dubashi | Journal of Global Trends in Pharmaceutical | 2020 | | | Centre for Pharmaceutical sciences, IST, JNTUH |

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| A Review on Proniosomes: Formulation, Characterization and Application | M.Sunitha Reddy, M Sheetal Lakum | American Journal of Pharmacy and Health Research | 2020 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Solubility and dissolution enhancement of poorly aqueous soluble drug-Gefitinib by Self Emulsifying Drug Delivery Systems | M.Sunitha Reddy, B. Sindu Vahini | International Journal of Pharmaceutical and research | 2020 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Proniosomes - A Novel Drug Delivery Carrier; A Review | Sunitha Reddy M*, Hemantha Lakshmi | Journal of Global Trends in Pharmaceutical Sciences | 2020 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| A Review on Self Emulsifying Drug Delivery Systems | Sunitha Reddy M.* Pallavi Dongre | European Journal of Biomedical and Pharmaceutical Sciences | 2020 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| Self-Emulsifying Drug Delivery System (SEDDS): An Approach To Increase The Solubility Of Lipophilic Drugs | Sunitha Reddy M*, Sowmya V | American Journal of Pharmacy and Health Research | 2020 | | | Centre for Pharmaceutical sciences, IST, JNTUH |
| **Centre for Spatial Information and Technology (CSIT)** | | | | | | |
| NIL | | | | | | |
| **Centre for Water Resources (CWR)** | | | | | | |
| NIL | | | | | | |

3.4.7 Faculty participation in Seminars/Conferences and Symposia during the CAY:

**Centre for Biotechnology (CBT)**

| No. of Faculty | International level | National level | State level | Local level |
|---|---|---|---|---|
| Attended Seminars/ Workshops | | 20 | | |
| Presented papers | | 5 | | |
| Resource Persons | | | | |

**Centre for Chemical Science & Technology (CCST)**

| No. of Faculty | International level | National level | State level | Local level |
|---|---|---|---|---|
| Attended Seminars/ Workshops | 04 | 11 | 02 | 05 |
| Presented papers | 03 | 02 | | |
| Resource Persons | 01 | | | |

**Centre for Environment (CEN)**

| No. of Faculty | International level | National level | State level | Local level |
|---|---|---|---|---|
| Attended Seminars/ Workshops | 1 | 4 | 5 | 4 |
| Presented papers | | 2 | 2 | 4 |
| Resource Persons | | | 4 | 4 |

**Centre for Nano Science and Technology (CNST)**

| No. of Faculty | International level | National level | State level | Local level |
|---|---|---|---|---|
| Attended Seminars/ Workshops | 02 | 03 | 02 | 02 |
| Presented papers | 02 | 02 | 02 | 02 |
| Resource Persons | 02 | 02 | 02 | 02 |

**Centre for Pharmaceutical Sciences (CPS)**

| No. of Faculty | International level | National level | State level | Local level |
|---|---|---|---|---|
| Attended Seminars/ Workshops | 1 | 4 | 12 | 16 |
| | | | | |

| Centre for Spatial Information and Technology (CSIT) | | | | |
|---|---|---|---|---|
| No. of Faculty | International level | National level | State level | Local level |
| Attended Seminars/ Workshops | 02 | 06 | 01 | Seminar 01 |

| Centre for Water Resources (CWR) | | | | |
|---|---|---|---|---|
| No. of Faculty | International level | National level | State level | Local level |
| Attended Seminars/ Workshops | 1 | 4 | | |
| Presented papers | 5 | 21 | | |

**3.5 Consultancy**

3.5.1 Revenue generated from Consultancy during the CAY

**Centre for Environment (CEN)**

| Name of the Consultant(s) department | Name of Consultancy project | Consulting/Sponsoring Agency | Revenue generated (amount in rupees) |
|---|---|---|---|
| centre for environment | water analysis | Bhagirata chemicals pvt ltd | 0.10 lakhs |
| centre for environment | water analysis | Bhagirata chemicals pvt ltd | 0.50 lakhs |
| centre for environment | water analysis | HMDA-HGCL, Hyderabad | 0.50 lakhs |
| centre for environment | Air quality, Water quality and ground water quality on JICA Phase-I & Phase-II stretch along ORR Hyderabad. | Bhagirata chemicals pvt ltd | 4.38 Lakhs |

**Centre for Water Resources (CWR)**

| Name of the Consultant(s) department | Name of Consultancy project | Consulting/Sponsoring Agency | Revenue generated (amount in rupees) |
|---|---|---|---|
| Centre for Water Resources | Identification of water wells points using Resistivity imaging at RR district | Consulting | Rs.50,000/- |
| Centre for Water Resources | Identification of water well site at Appareddypally, Rangareddy district | Consulting | Rs.50,000/- |

| | | | |
|---|---|---|---|
| | using Resistivity Imaging survey | | |
| | | | |

3.5.2 Revenue generated from Corporate Training by the institution during the CAY

**Centre for Spatial Information and Technology (CSIT)**

| Name of the Consultant(s) &Department | Title of the Programme | Agency seeking training | Revenue generated (amount in rupees) | Number of trainees |
|---|---|---|---|---|
| Infosys | Intermediate GIS concepts | Infosys | Rs.4 lakhs | 200(8 batches) |
| | | | | |

**3.6 Extension Activities**

3.6.1 Number of extension and outreach programmes conducted in collaboration with industry, community and Non-Government Organisations throughNSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the CAY

| Title of the Activities | Date of Activity | Organising unit/ agency/ collaborating agency | Number of teachers **coordinated** in such activities | Number of students participated in such activities | Brief Description |
|---|---|---|---|---|---|
| Health camp-2019 | | JNTUH-IST | **09** | **100** | |
| Social Responsibility | 01-02-2020 | CNST,IST, JNTUH& S N Arts, D J M Commerce And B N S Science College, Sangamner- 422605(MS) institute working at rural area of Maharashtra | 02 | 50 | One day workshop on synthesis, characterization and applications of Nanomaterials on 01-02-2020 |
| Role of NSS in Nation Building – 28/08/19 | NSS-IST-JNTUH | | 03 | 300 | |
| 50 years of NSS In nation building – 25/10/2019 | NSS-UHC-JNTUH | | 03 | 250 | |
| Mega Blood Camp – 18/12/2019 | Red Cross Society-JNTUH | | 04 | 550 | |

3.6.2 Awards and recognition received for extension activities from Government and other recognized bodies during the CAY

| Name of the Activity | Award/recognition | Awarding bodies | No. of Students benefited |
|---|---|---|---|
| NSS | **Recognition** | **ISKON** | **1** |
| | | | |

3.6.3 Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the CAY

| Name of the scheme | Organising unit/ agency/ collaborating agency | Name of the activity | Number of teachers **coordinated** in such activities | Number of students participated in such activities |
|---|---|---|---|---|
| Health camp-2019 | JNTUH-IST | Health camp | 09 | 100 |
| NSS | JNTUH-IST | Cancer awareness | 09 | 60 |
| NSS | JNTUH-IST | Swachh bharath | 09 | 60 |
| Equity Action Plan | CNST,IST, JNTUH | Equity Action Plan A Two-Day Workshop on "Sensitization of Socially Challenged Communities-Higher Education"7th & 8th August 2019 Under TEQIP-III | 02 | 200 |
| Social Responsibility | CNST,IST, JNTUH& S N Arts, D J M Commerce And B N S Science College, Sangamner-422605(MS) institute working at rural area of Maharashtra | One day workshop on synthesis, characterization and applications of Nanomaterials on 01-02-2020 | 02 | 50 |

**3.7 Collaborations**

3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange during the CAY

| Nature of Activity | Participant | Source of financial support | Duration |
|---|---|---|---|
| **Centre for Chemical Science & Technology (CCST)** | | | |
| Organic synthesis | **Ps3 laboratories** | From the group of pharma laboratories (Dr.Reddy's, Mylan) | **3 years** |
| **Centre for Environment (CEN)** | | | |
| Nature of Activity | Participant | Source of financial support | Duration |
| M/s. Jeedimetla effluent treatment plant working on their effluents | **2** | TEQIP-III | **1 year** |

| | | | |
|---|---|---|---|
| M/s. Ramkyenviroenginners joint R&D projects | **2** | TEQIP-III | **1 year** |
| M/s. Unique biopharma Ltd joint R&D project proposed | **1** | TEQIP-III | **1 year** |
| CII GBC, Hyderabad | **2** | CII GBC | **1 year** |
| M/s. Global information technologies | **1** | | **1 year** |
| NIRD Govt of India Hyderabad | **1** | TEQIP-III | **1 year** |
| **Centre for Nano Science and Technology (CNST)** | | | |
| **Nature of Activity** | **Participant** | **Source of financial support** | **Duration** |
| GIAN course on "Cancer Theranostics<br><br>Organized by<br>Centre for Nano Science & Technology, Institute of Science and Technology, Jawaharlal Nehru Technological University Hyderabad & MHRD | 30 | MHRD | 08-07-2019 to 12-07-2019, |
| One day workshop On Energy Storage (ES)<br>Jointly Organized by<br>Centre for Environment,<br>&<br>Centre for Nano Science & Technology<br>Institute of Science and Technology,<br>Jawaharlal Nehru Technological University Hyderabad,<br>Kukatpally, Hyderabad-500085 (T.S)<br>In collaboration with<br>Dayalbagh Educational Institute (Deemed University)<br>Dayalbagh, Agra - 282 005 (U.P) | 50 | TEQIP-III | 29-04-2019 |
| M.Tech Nanotechnology Students had gone for one week hands on training and to carryout joint research project on Nanotechnology Based Rapid Prototyping at Dayalbagh Educational | 06 | TEQIP-III | 15-04-2019 to 20-04-2019 |

| | | | |
|---|---|---|---|
| Institute (DEI ) , Agra. | | | |
| A Two-Week AICTE and TEQIP-III Funded FDP on “Synthesis and Characterization of Nanomaterials” | 100 | AICTE-TEQIP-III | 04-11-2019 to 16-11-2019 |
| A One Week AICTE - TEQIP-III Funded STTP Programme on Synthesis,characterization and its applications of Nanomaterials(Upcoming) | 100 | AICTE-TEQIP-III | 06-07-2020 to 12-06-2020(Tentative) |
| Three Day Hands on Training on "Analaytical Instrumentation (ZETA SIZER, UV, TG-DTA, FTIR, XRD, PARTICLE SIZE ANALYZER)" | 190 | TEQIP-III | 03-10-2019 to 05-10-2019 |
| Two Day workshop on "Women Occupational Health and Safety" from 22-11-2019. | 300 | TEQIP-III | 22-11-2019 to 23-11-2019 |

3.7.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the CAY

**Centre for Biotechnology (CBT)**

| Nature of linkage | Title of the linkage | Name of the partnering institution/ industry /research lab with contact details | Duration (From-To) | participant |
|---|---|---|---|---|
| Institution | Project work | ICRISAT | 6Months | K. SaiHarini 18031G0311 |
| Institution | Project work | IICT | 6Months | P. Divya 18031G0319 |
| Institution | Projectwork | University of Hyderabad | 6Months | M. Sushmitha 18031G0313 |
| Institution | Projectwork | IICT | 6Months | P.Sneha 18031G0320 |
| Institution | Projectwork | IICT | 6Months | B. Nandini 18031G0304 |
| Institution | Projectwork | National centre for animal biotechnology (NIAB) | 6Months | ThoutamSowmya 18031G0322 |
| Institution and hospital | Projectwork | Institute of Genetics and hospital for genetic disorders | 6Months | Sravani.K 18031G0309 |
| Institution | Projectwork | University of Hyderabad | 6Months | Naziya Begum 18031G0318 |

| | | | | |
|---|---|---|---|---|
| Institution | Projectwork | IICT | 6Months | V.B.V.G.Vaibhav 18031G0324 |
| Institution | Projectwork | IICT | 6Months | U.K.Aleta<br>18031G0323 |
| Institution | Projectwork | IICT | 6Months | G.Apoorva 18031G0306 |
| Institution | Projectwork | ICRISAT | 6Months | M.Vineela 18031G0314 |
| Institution | Projectwork | ICRISAT | 6Months | D.Chandana 18031G0305 |
| Institution | Projectwork | IICT | 6months | M.Dhruthireddy 18031G0315 |
| Institution | Projectwork | NDDB HYDERABAD | 1 YEAR | Kavya 18031D301 |
| Institution | Projectwork | NDDB HYDERABAD | 1 YEAR | Jhansi 18031D303 |
| Institution | Projectwork | NDDB HYDERABAD | 1 YEAR | Sandhya 18031D304 |
| Institution | Projectwork | NDDB HYDERABAD | 1 YEAR | Poojita 18031D305 |
| **Centre for Chemical Sciences &Technology** | | | | |
| Project Work | Project Work | IICT | 1year (Aug,2019-July2020) | **01** |
| Institution | Project work | NGRI | 6 Months | 18031 G 2201 |
| Institution | Project work | Symed Research Centre | 6 Months | 18031 G 2206 |
| Institution | Project work | Symed Research Centre | 6 Months | 18031 G 2208 |
| Institution | Project work | Symed Research Centre | 6 Months | 18031 G 2210 |
| Institution | Project work | Hetero Pharma Ltd | 6 months | 18031 G 2213 |
| Institution | Project work | Hetero Pharma Ltd | 6 Months | 18031 G 2214 |
| Institution | Project work | IICT | 6 Months | 18031 G 2215 |
| Institution | Project work | Symed Research Centre | 6 Months | 18031 G 2217 |
| Institution | Project work | Hetero Pharma Ltd | 6 Months | 18031 G 2218 |
| Institution | Project work | IICT | 6 Months | 18031 G 0802 |

| | | | | |
|---|---|---|---|---|
| Institution | Project work | Innovare labs | 6 Months | 18031 G 0810 |
| Institution | Project work | IICT | 6 Months | 18031 G 0811 |
| Institution | Project work | IICT | 6 Months | 18031 G 0818 |
| Institution | Project work | Virchow Biotech | 6 Months | 18031 G 0820 |
| **Centre for Environment (CEN)** | | | | |
| Nature of linkage | Title of the linkage | Name of the partnering institution/ industry /research lab with contact details | Duration (From-To) | participant |
| Project work | Project work | M/s. Mobiterra PVT ltd | One year | **2** |
| | | M/s.Tricad design consultant pvt ltd | One year | **2** |
| | | M/s. RSI Hyderabad | One year | **2** |
| | | CII GBC, hyderabad | One year | **2** |
| | | M/s. Jeedimetla effluent treatment plant | One year | **2** |
| | | M/s. Ramkyenviroenginners | One year | **2** |
| | | M/s. Unique biopharma Ltd | One year | **1** |
| **Centre for Nano Science and Technology (CNST)** | | | | |
| Nature of linkage | Title of the linkage | Name of the partnering institution/ industry /research lab with contact details | Duration (From-To) | participant |
| Summer Internship | Synthesis of Silica Nano particles by solgel | Nano Span Pvt. Ltd. | 1st May, 2019 to 2nd June, 2019 | 01 |
| **Centre for Pharmaceutical Sciences (CPS)** | | | | |
| Nature of linkage | Title of the linkage | Name of the partnering institution/ industry /research lab with contact details | Duration (From-To) | participant |
| M. Pharmacy Project | F R&D<br>A R&D<br>BA R&D<br>Natural products chemistry | 1. DeawongPvt.ltd (04044668800)<br>2. Neuheit Pharma Technologies.Pvt.Ltd(09100948789)<br>3. CSIR-IICT (04027193234)<br>4. VRKR Ayurvedic Hospital, Erragadda (040 2381 0236) | 22/07/2019 – 23/05/2020 | 16 |

| | | | | |
|---|---|---|---|---|
| | | 5. RA Chem Pharmaceuticals | | |
| **Centre for Spatial Information and Technology (CSIT)** | | | | |
| Nature of linkage | Title of the linkage | Name of the partnering institution/ industry /research lab with contact details | Duration (From-To) | participant |
| Project work | Internship | 1.Geosys 2.kreetos | (29th June 2020 to 29th august 2020) | 13 |
| **Centre for Water Resources (CWR)** | | | | |
| Nature of linkage | Title of the linkage | Name of the partnering institution/ industry /research lab with contact details | Duration (From-To) | participant |
| Project work | Aerated Wet Lands : Sustainable Nature Based Solution For Present And Future Socio Environment And Climate Change | M/s. Blue drop Environ Ltd | 6 months | **V.Sujana** 18031d5916 |
| | | | | |
| | | | | |

| 3.7.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the CAY | | | |
|---|---|---|---|
| Organisation | Date of MoU signed | Purpose and Activities | Number of students/teachers participated under MoUs |
| **Centre for Pharmaceutical Sciences (CPS)** | | | |
| Neuheit Pharma Technologies | 18-03-2020 | Industrial Training & visits, Internships and Placements, Research and Development , Students Projects, Skill Development programmes, Guest lectures, Faculty development Programmes | Teachers- 09 Students -53 |
| | | | |

## CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 Physical Facilities

4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year

| | Budget allocated for infrastructure augmentation | Budget utilized for infrastructure development |
|---|---|---|
| CBT | 13.2 laksh | 1.75 lakhs |
| CCST | NIL | NIL |
| CEN | | |
| CNST | Rs.8,40,164/-(Equipments) | Rs.8,40,164/-(Equipments) |
| CPS | | |
| CSIT | | |
| CWR | Rs.52,92,000/- | Rs.56,05,000/- |
| | | |

**4.1.2 Details of augmentation in infrastructure facilities during the year**

**Centre for Biotechnology (CBT)**

| Facilities | Existing | Newly added |
|---|---|---|
| Campus area | | |
| Class rooms | 04 | 00 |
| Laboratories | 11 | 01 |
| Seminar Halls | 01 | 00 |
| Classrooms with LCD facilities | 00 | 03 |
| Classrooms with Wi-Fi/ LAN | 04 | 00 |
| Seminar halls with ICT facilities | 03 | 01 |
| Video Centre | 03 | 01 |
| No. of important equipments purchased (≥ 1-0 lakh) during the current year. | 13 | 00 |
| Value of the equipment purchased during the year (Rs. in Lakhs) | 69,99,357 | 00 |
| Others | 00 | 00 |

**Centre for Chemical Science & Technology (CCST)**

| Facilities | Existing | Newly added |
|---|---|---|
| Campus area | | |
| Class rooms | 04 | Nil |
| Laboratories | 05 | 01 |
| Seminar Halls | 01 | Nil |
| Classrooms with LCD facilities | 04 | Nil |
| Classrooms with Wi-Fi/ LAN | NIL | Nil |
| Seminar halls with ICT facilities | 01 | - |
| Video Centre | - | - |
| No. of important equipments purchased (≥ 1-0 lakh) during the current year. | - | 06 |
| Value of the equipment purchased during the year (Rs. in Lakhs) | - | Mass Spectrometer-36.0<br>Digital dual column Gas chromatograph -5 Lakhs<br>Polarimetre – 4.03<br>Parallel synthesizer - 4.25<br>**TOTAL -49.78 lakhs** |

**Centre for Environment (CEN)**

| Facilities | Existing | Newly added |
|---|---|---|
| Campus area | 02 | - |

| | | |
|---|---|---|
| Class rooms | 11 | - |
| Laboratories | Nil | - |
| Seminar Halls | 02 | - |
| Classrooms with LCD facilities | 02 | - |
| Classrooms with Wi-Fi/ LAN | Nil | - |
| Seminar halls with ICT facilities | Nil | - |
| Video Centre | | |
| No. of important equipments purchased (≥ 1-0 lakh) during the current year. | 5 lakhs | 36.72 lakhs |
| Value of the equipment purchased during the year (Rs. in Lakhs) | 54 lakhs | 40 lakhs |
| **Centre for Nano Science and Technology (CNST)** | | |
| Facilities | Existing | Newly added |
| Campus area | **764 sq.m** | - |
| Class rooms | **1** | - |
| Laboratories | **7** | - |
| Seminar Halls | **1** | - |
| Classrooms with LCD facilities | **1** | - |
| Classrooms with Wi-Fi/ LAN | **NIL** | - |
| Seminar halls with ICT facilities | **1** | - |
| Video Centre | **NIL** | - |
| **No. of important equipments purchased (≥ 1-0 lakh) during the current year.2019-20** | 10 | - |
| **Value of the equipment purchased during the year (Rs. in Lakhs) 2019-20** | 2823686/- | - |
| **Centre for Pharmaceutical Sciences (CPS)** | | |
| Facilities | Existing | Newly added |
| Campus area | | |
| Class rooms | 168sq.mtrs | |
| Laboratories | 475sq.mt | |
| Seminar Halls | | |
| Classrooms with LCD facilities | 168sqm | |
| Classrooms with Wi-Fi/ LAN | | |
| Seminar halls with ICT facilities | | |
| Video Centre | | |
| No. of important equipments purchased (≥ 1-0 lakh) during the current year. | | |
| Value of the equipment purchased during the year (Rs. in Lakhs) | **1,92,000/-** | Computers 06 Nos |
| **Centre for Spatial Information and Technology (CSIT)** | | |
| Facilities | Existing | Newly added |
| Campus area | | |
| Class rooms | | |
| Laboratories | 02 | |
| Seminar Halls | 02 | |
| Classrooms with LCD facilities | 02 | |
| Classrooms with Wi-Fi/ LAN | 02 | |
| Seminar halls with ICT facilities | 01 | |
| Video Centre | 01 | |

| | | |
|---|---|---|
| No. of important equipments purchased (≥ 1-0 lakh) during the current year. | NIL | |
| Value of the equipment purchased during the year (Rs. in Lakhs) | | 05 Lakhs |

**Centre for Water Resources (CWR)**

| Facilities | Existing | Newly added |
|---|---|---|
| Campus area | | |
| Class rooms | 01 | |
| Laboratories | 03 | |
| Seminar Halls | 01 | |
| Classrooms with LCD facilities | 01 | |
| Classrooms with Wi-Fi/ LAN | 01 | |
| Seminar halls with ICT facilities | 01 | |
| Video Centre | - | |
| No. of important equipments purchased (≥ 1-0 lakh) during the current year. | 03 | |
| Value of the equipment purchased during the year (Rs. in Lakhs) | Rs.9,72,090/- | 30 new computers |
| | | |

**4.2 Library as a Learning Resource**

4.2.1 Library is automated {Integrated Library Management System -ILMS}

| Name of the ILMS software | Nature of automation (fully or partially) | Version | Year of automation |
|---|---|---|---|
| NIL | NIL | NIL | NIL |

4.2.1 Library Services:

**Centre for Biotechnology (CBT)**

| | Existing | | Newly added | | Total | |
|---|---|---|---|---|---|---|
| | No. | Value | No. | Value | No. | Value |
| Text Books | 230 | 77520 | 0 | 0 | 0 | 77520 |
| Reference Books | 100 | 1,54513 | 0 | 0 | 0 | 1,54,513 |
| e-Books | 20 | Free | 0 | 0 | 0 | 0 |
| Journals | 40 | Free | 0 | 0 | 0 | 0 |
| e-Journals | 20 | Free | 0 | 0 | 0 | 0 |
| Digital Database | 0 | 0 | 0 | 0 | 0 | 0 |
| CD & Video | 0 | 0 | 0 | 0 | 0 | 0 |
| Library automation | 0 | 0 | 0 | 0 | 0 | 0 |
| Weeding (Hard & Soft) | 0 | 0 | 0 | 0 | 0 | 0 |
| Others (specify) | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | |

**Centre for Chemical Science & Technology (CCST)**

| | Existing | | Newly added | | Total | |
|---|---|---|---|---|---|---|
| | No. | Value | No. | Value | No. | Value |
| Text Books | 430 | 4.00 Lakhs | 60 | 1.00 lakh | 490 | 5 lakhs |
| Reference Books | 25 | | 20 | | 45 | |
| e-Books | - | - | | | | - |
| Journals | 2 | - | - | | | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| e-Journals | - | | | | | - |
| Digital Database | Nil | Nil | Nil | Nil | Nil | Nil |
| CD & Video | Nil | Nil | Nil | Nil | Nil | Nil |
| Library automation | Nil | Nil | Nil | Nil | Nil | Nil |
| Weeding (Hard & Soft) | Nil | Nil | Nil | Nil | Nil | Nil |
| Others (specify) | Nil | Nil | Nil | Nil | Nil | Nil |
| **Centre for Environment (CEN)** | | | | | | |
| | Existing | | Newly added | | Total | |
| | No. | Value | No. | Value | No. | Value |
| Text Books | 545 | 12.0 lakhs | Nil | | 545 | 12.0 lakhs |
| Reference Books | 55 | 1.65 lakhs | | | 55 | 1.65 lakhs |
| e-Books | | | | | | |
| Journals | | | | | | |
| e-Journals | | | | | | |
| Digital Database | | | | | | |
| CD & Video | | | | | | |
| Library automation | | | | | | |
| Weeding (Hard & Soft) | | | | | | |
| Others (specify) | | | | | | |
| **Centre for Nano Science and Technology (CNST)** | | | | | | |
| | Existing | | Newly added | | Total | |
| | No. | Value | No. | Value | No. | Value |
| Text Books | **13** | **20,000/-** | | | | |
| Reference Books | **10** | **15,000/-** | | | | |
| e-Books | **2500** | - | | | | |
| Journals | **500** | - | | | | |
| e-Journals | **3000** | - | | | | |
| Digital Database | - | - | | | | |
| CD & Video | - | - | | | | |
| Library automation | - | - | | | | |
| Weeding (Hard & Soft) | - | - | | | | |
| Others (specify) | - | - | | | | |
| **Centre for Pharmaceutical Sciences (CPS)** | | | | | | |
| | Existing | | Newly added | | Total | |
| | No. | Value | No. | Value | No. | Value |
| Text Books | - | - | - | - | - | - |
| Reference Books | - | - | - | - | - | - |
| e-Books | - | - | - | - | - | - |
| Journals | - | - | - | - | - | - |
| e-Journals | - | - | - | - | - | - |
| Digital Database | - | - | - | - | - | - |
| CD & Video | - | - | - | - | - | - |
| Library automation | - | - | - | - | - | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| Weeding (Hard & Soft) | - | - | - | - | - | - |
| Others (specify) | - | - | - | - | - | - |
| **Centre for Spatial Information and Technology (CSIT)** | | | | | | |
| | Existing | | Newly added | | Total | |
| | No. | Value | No. | Value | No. | Value |
| Text Books | 185 | --- | Nil | | | |
| Reference Books | Nil | | | | | |
| e-Books | 05 | | | | | |
| Journals | Nil | | | | | |
| e-Journals | 1271 | | | | | |
| Digital Database | 05 | | | | | |
| CD & Video | Nil | | | | | |
| Library automation | Nil | | | | | |
| Weeding (Hard & Soft) | Nil | | | | | |
| Others (specify) | Nil | | | | | |
| **Centre for Water Resources (CWR)** | | | | | | |
| | Existing | | Newly added | | Total | |
| | No. | Value | No. | Value | No. | Value |
| Text Books | 250 | | | | | |
| Reference Books | - | | | | | |
| e-Books | 18 | | | | | |
| Journals | - | | | | | |
| e-Journals | 3000 | | | | | |
| Digital Database | | | | | | |
| CD & Video | | | | | | |
| Library automation | | | | | | |
| Weeding (Hard & Soft) | | | | | | |
| Others (specify) | | | | | | |

## 4.3 IT Infrastructure

4.3.1 Technology Upgradation (overall)

**Centre for Biotechnology (CBT)**

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Departments | Available band width (MGBPS) | Others |
|---|---|---|---|---|---|---|---|---|---|
| Existing | 15 | 01 | 01 | 01 | 01 | 01 | 01 | 95 | 00 |
| Added | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Total | 15 | 01 | 01 | 01 | 01 | 01 | 01 | 95 | 00 |

**Centre for Chemical Science & Technology (CCST)**

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Departments | Available band width (MBPS/GBPS) | Others |
|---|---|---|---|---|---|---|---|---|---|
| Existing | 09 | 01 | 90MBPS | 01 | 01 | 01 | 01 | 90MBPS | Nil |
| Added | 01 | - | 90MBPS | - | - | - | - | 90MBPS | NIL |
| Total | 10 | 01 | 90MBPS | 01 | 01 | 01 | 01 | 90MBPS | Nil |

**Centre for Environment (CEN)**

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Departments | Available band width (MBPS/GBPS) | Others |
|---|---|---|---|---|---|---|---|---|---|
| Existing | 70 | 1 | yes | yes | yes | yes | Cen | 50 | |
| Added | | | | | | | | | |
| Total | 70 | 1 | | | | | | | |

**Centre for Nano Science and Technology (CNST)**

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Departments | Available band width (MBPS/GBPS) | Others |
|---|---|---|---|---|---|---|---|---|---|
| Existing | 25 | 20 | LAN | 1 | 1 | 3 | 1 | 100 MBPS | |
| Added | Added | - | - | - | - | - | - | - | - |
| Total | Total | 30 | 1 | 1 | 1 | 3 | 1 | 100 MBPS | |

**Centre for Pharmaceutical Sciences (CPS)**

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Departments | Available band width (MBPS/GBPS) | Others |
|---|---|---|---|---|---|---|---|---|---|
| Existing | 10 | 02 | 01 | 02 | 01 | 01 | 03 | 90MMBS | |
| Added | 08 | - | - | 02 | - | - | - | | |
| Total | 18 | 02 | 01 | 04 | 01 | 01 | 03 | | |

**Centre for Spatial Information and Technology (CSIT)**

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Departments | Available band width (MBPS/GBPS) | Others |
|---|---|---|---|---|---|---|---|---|---|
| Existing | 75 | 03 | 75 | 03 | No | 02 | 01 | 10mbps | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Added | Nil | | | | | | | | |
| Total | 75 | 03 | 75 | 03 | No | 02 | 01 | | |

**Centre for Water Resources (CWR)**

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Departments | Available band width (MBPS/GBPS) | Others |
|---|---|---|---|---|---|---|---|---|---|
| Existing | **55** | **02** | **01** | 01 | 01 | 01 | 01 | **100 MBPS** | 00 |
| Added | | | | | | | | | |
| Total | | | | | | | | | |

4.3.2 Bandwidth available of internet connection in the Institution (Leased line)

……400…… MBPS /GBPS

4.3.3 Facility for e-content

| Name of the e-content development facility | | Provide the link of the videos and media centre and recording facility |
|---|---|---|
| **CNST** | **Moodle Platform** | **kalagaddavrao.moodlecloud.com** |
| CWR | **NPTEL SWAYAM** | |

4.3.4 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

| Name of the teacher | Name of the module | Platform on which module is developed | Date of launching e – content |
|---|---|---|---|
| NIL | | | |
| NIL | | | |

**4.4 Maintenance of Campus Infrastructure**

4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

| Assigned budget on academic facilities | | Expenditure incurred on maintenance of academic facilities | Assigned budget on physical facilities | Expenditure incurred on maintenance of physical facilities |
|---|---|---|---|---|
| CNST | 11,80,000/- | 1144000/- | 26,46,236/- | 26,46,236/- |
| CPS | 1,20,000 | 33000 | | |

4.4.2 Procedures and policiesfor maintainingandutilizingphysical,academicand support facilities - laboratory, library, sportscomplex,computers,classrooms etc. *(maximum 500 words)* (information to be available in institutional Website, provide link)

**http://jntuhist.ac.in/**

## CRITERION V - STUDENT SUPPORT AND PROGRESSION

### 5.1 Student Support

5.1.1 Scholarships and Financial Support

| | Name /Title of the scheme | Number of students | Amount in Rupees |
|---|---|---|---|
| **Centre for Biotechnology (CBT)** | | | |
| Financial support from institution | **Financial Assistance for Project work under R&D, TEQIP III** | **4** | **80,000** |
| **Centr For Chemical Sciences &Technology** | | | |
| Financial support from institution | **Financial Assistance for Project work under R&D, TEQIP III** | **01** | **20,000** |
| Financial support from other sources | | | |
| **Centre for Nano Science and Technology (CNST)** | | | |
| a) National | GATE STIPEND | M.Tech(NT) 2018-20 batch (11 Students)<br>M.Tech(NT) 2019-21 batch (11 Students) | 1,32,000/-<br>1,32,000/- |
| b) International | Financial assistance for project work under R & D component of TEQIP III | M.Tech(NT) 2018-20 batch (10 Students) | 2,00,000/- |
| **Centre for Pharmaceutical Sciences (CPS)** | | | |
| a) National | GPAT & Scholarships (BC, SC, Minority | 53 | 2,97,600/- (per student) |
| b) International | | | |
| **Centre for Spatial Information and Technology (CSIT)** | | | |
| a) National | GATE | 12 | 1,44,00000 |
| b) International | | | |
| | | | |

5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

| Name of the capability enhancement scheme | Date of implementation | Number of students enrolled | Agencies involved |
|---|---|---|---|
| **Centre for Chemical Science & Technology (CCST)** | | | |
| SOFT SKILLS | 2019 | 36 | TEQIP |
| Remedial coaching | August 2019 | 36 | TEQIP-III |
| Mentoring | August 2019 | 36 | TEQIP-III |
| **Centre for Environment (CEN)** | | | |
| Communication soft skills | August 2019 | 32 | TEQIP-III |
| GATE coaching | August 2019 | 32 | TEQIP-III |
| Remedial coaching | August 2019 | 32 | TEQIP-III |

| | | | |
|---|---|---|---|
| Mentoring | August 2019 | 32 | TEQIP-III |
| **Centre for Nano Science and Technology (CNST)** | | | |
| Personal Counselling and Mentoring | 03-09-2019 | M.Tech(Nanotechnology )<br>2019-21 batch<br>(12 Students) | TEQIP-III |
| Personal Counselling and Mentoring | 22-07-2019 | M.Tech(Nanotechnology ) 2018-20 batch<br>(12 Students) | TEQIP-II |
| Soft skill development (Psychometric Test ) | 14-03-2020 | M.Tech(Nanotechnology )<br>2019-21 batch<br>(12 Students)<br><br>M.Tech(Nanotechnology ) 2018-20 batch<br>(12 Students) | CII JNTUH |
| GATE Coaching | 21-09-2019 | M.Tech(Nanotechnology ) 2018-20 batch<br>(08 students) | TEQIP-III |
| GATE Coaching | 21-09-2019 | M.Tech(Nanotechnology ) 2019-20 batch<br>(01 student) | TEQIP-III |
| Art of living program | 28-08-2019 to 31-08-2019 | M.Tech(Nanotechnology ) 2019-20 batch<br>(12 students) | TEQIP-III |
| Employability Assessment Test | 29-08-2019 | M.Tech(Nanotechnology ) 2018-20 batch<br>(12 students) | TEQIP-III |
| Soft skill Training Programme | 05-08-2019 to 07-08-2019 | M.Tech(Nanotechnology ) 2018-20 batch<br>(12 students) | TEQIP-III |
| **Centre for Spatial Information and Technology (CSIT)** | | | |
| Soft skills development | 15-09-2019 | 13 | TEQIP-III |
| **Centre for Water Resources (CWR)** | | | |
| Remedial coaching, | 30th December 2019 to 4th January 2020 | 14 | At Centre for Water Resources Dept only |

5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

| Year | Name of the scheme | Number of benefited students by Guidance for Competitive examination | Number of benefited students by Career Counselling activities | Number of students who have passed in the competitive exam | Number of students placed |
|---|---|---|---|---|---|
| **Centre for Environment (CEN)** | | | | | |
| 2019 | Student orientation | 32 | 32 | | |

| | | | | | |
|---|---|---|---|---|---|
| | program | | | | |
| **Centre for Nano Science and Technology (CNST)** | | | | | |
| 2019-20 | GATE Exam-2020 Coaching | 09 | 09 | 04 | 02 |
| 2019-20 | Soft skill development (Psychometric Test ) | 24 | 24 | 02 | 02 |
| 2019-20 | Employability Assessment Test | 12 | 12 | 06 | 02 |
| | | | | | |
| | | | | | |
| | | | | | |

5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

| Total grievances received | | No. of grievances redressed | Average number of days for grievance redressal |
|---|---|---|---|
| | | | |
| **CBT** | **01** | **01** | **1 Week** |
| CPS | 02 | 02 | 2days |
| | | | |
| | | | |

**5.2 Student Progression**

5.2.1 Details of campus placement during the year

| **On campus** | | | **Off Campus** | | |
|---|---|---|---|---|---|
| Name of Organizations Visited | Number of Students Participated | Number of Students Placed | Name of Organizations Visited | Number of Students Participated | Number of Students Placed |
| CCST | | | | | |
| Hetero Drugs | 25 | 04 | **Burger Paints** | **02** | **01** |
| GVK Laboratories | 25 | 07 | **Spandana Laboratories** | **01** | **01** |
| **Centre for Environment (CEN)** | | | | | |
| | | | India post, bhimavaram division Mailid.dobhimavram.ap@indiapost.gov.in | 2 | 1 |
| | | | AE, TSSPDCL, | 5 | 1 |
| | | | AEE, RWS &S Govt | 6 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| | | | of Telangana | | |
| | | | AEE, RWS &S Govt of Telangana | 5 | 1 |
| | | | Environmental. Engineer, GHMC, Hyderabad | 6 | 1 |
| | | | Engineer, CII, GBC, Hyderabad | 4 | 1 |
| **Centre for Nano Science and Technology (CNST)** | | | | | |
| NIL | NIL | NIL | DST SERB CORE Project | 01 | 01 |
| | | | DST SEED Project | 01 | 01 |
| | | | Airport Authority of India | 01 | 01 |
| | | | Indian Railways | 02 | 02 |
| | | | ITI Limited PSU (A Govt of India undertaking) | 01 | 01 |
| | | | Advance systems Laboratory (DRDO) | 01 | 01 |
| | | | Panchayat and Rural Development Department Govt of Telangana | 01 | 01 |
| **Centre for Pharmaceutical Sciences (CPS)** | | | | | |
| Neuheit Pharma Technologies.Pvt.Ltd | 34 | 02 | Aziant Drug Research Solution(P) Ltd | 06 | 04 |
| DeawongPvt.ltd | 28 | 02 | GVK Bio Pharma | 01 | 01 |
| | | | GD Research Centre Private Limited | 04 | 02 |
| | | | Chantilly BioPharmaPvt,Ltd | 02 | 02 |
| | | | Aurobindo Pharma Limited | 01 | 01 |
| | | | Etico Lifesciences PVT. LTd. | 01 | 01 |
| **Centre for Water Resources (CWR)** | | | | | |
| NIL | | NA | | NA | 4 |

5.2.2 Student progression to higher education in percentage during the year

| Year | Number of students enrolling into higher education | Programme graduated from | Department graduated from | Name of institution joined | Name of Programme admitted to |
|---|---|---|---|---|---|
| 2019 | 4 | M.Tech (WET) | Centre for Water resources, IST,JNTUH | IST,JNTUH | Ph.D in JNTUH |
| | 2 | M.Sc (WES) | Centre for Water resources, IST,JNTUH | IST,JNTUH | Ph.D in JNTUH |
| | | | | | |

5.2.3 Students qualifying in state/ national/ international level examinations during the year (eg: NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

| Items | No. of Students selected/ qualifying | Registration number/roll number for the exam |
|---|---|---|
| NET | | |
| SET<br>GMAT<br>CAT<br>GRE<br>TOFEL<br>Civil Services<br>State Government Services<br>Any Other | | |
| SLET | | |
| GATE | Sandhya Enja | BT20S31404022 |
| | Rajesh B | XL2031404078 |
| | Somya thotam | BT20S37413014 |
| | G. Ramakrishna | CE18S81419803 |
| | Dharmendra Kumar | ME19S11402857 |
| | K. Bhavani | CE19S71406370 |
| | V. Rambabu | CE19S81405089 |
| | G. Sai Chandu | CE19S71405275 |
| | M. Vamshi | CE19S71405830 |
| | J. Omprakash | CE19S87132108 |
| | K. Vamshidhar | CE18S87150001 |
| | A.S.Niharika | CE19S81401325 |
| | L. Rakshna Kumar | CE18S81409462 |
| | S. Mahendar | CE17S81402145 |
| | V.KedariSameendar | CE19S73008364 |
| | Raju Ramavath | CE19S81406169 |
| | B. Hari Prakash | CE19S81406512 |
| | M. Swathi | CE19S81401389 |

| | | |
|---|---|---|
| | M. Jahnavi | CE19S81404407 |
| | Ch. Deepthi | CE19S71404163 |
| | M. Mahesh | EE19S61401306 |
| | K. Karthik Sai | EE19S61407221 |
| | N. Jyothsna | CE19S87121003 |
| | J. Gopinath | EE19S61408852 |
| | V.Devisharada | CE20S87408041 |
| | G.Shashank Reddy | CE20S81406983 |
| | E Ramani | CE20S71406607 |
| | K Srikant | CE20S87416030 |
| | V.Vijay | EC20S41401720 |
| | E.Mounavi | EE20S51404035 |
| | K.Uttej Rao | CE20S81401780 |
| | M.Kiran | EE20S51402521 |
| | P.Mahesh | CE20S71404460 |
| | P.Harish | CE20S81404986 |
| | | ME20S21406302 |
| | | ME20S21405471 |
| | | ME20S21401492 |
| | | CE20S71401335 |
| | | 19031S0701 |
| | | 19031S0702 |
| | | 19031S0703 |
| | | 19031S0704 |
| | | 19031S0401 |
| | | 19031S0402 |
| | | 19031S0403 |
| | | 19031S0404 |
| | | 19031S0406 |
| | | 19031S0407 |
| | | 19031S0408 |
| | | 19031S0409 |
| | | 19031S0410 |
| | | 19031S0411 |
| | | 19031S0301 |
| | | 19031S0302 |
| | | 19031S0303 |
| | | 19031S0304 |
| | | 19031S0305 |
| | | 19031S0306 |
| | | 19031S0307 |
| | | 19031S0308 |
| | | 19031S0309 |
| | | 19031S0310 |
| | | 19031S0311 |
| | | 19031S0314 |
| | Bhukya Rooplal | CE19S77131046 |
| | Panchala Mounika | CE19S87120054 |
| | Cherupuri Dileep Yadav | CE19S71404127 |
| | Vanaparthy Pranay | CE19S71404619 |

| | | |
|---|---|---|
| | Dade Balakrishna | CE19S71404383 |
| | Chiliveru Ajith | CE19S81405686 |
| | Kamperla Mounika | CE19S81401342 |
| | T. Ashish Reddy | CE19S71405662 |
| | Nakkala Suresh Yadav | CE19S77134094 |
| | Gaddala Nitin | CE19S71407096 |
| | Martha Saikumar | CE19S71405179 |
| | Mohammad Shakeer Hussain | CE19S71405192 |
| | Thatikondawar Kiran | CE19S81407633 |

5.2.4 Sports and cultural activities / competitions organised at the institution level during the year

| Activity | | Level | Participants |
|---|---|---|---|
| CEN | Science Quiz - 1st prize | National | 2 |

**5.3 Student Participation and Activities**

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

| Year | Name of the award/ medal | National/ International | Sports | Cultural | Student ID number | Name of the student |
|---|---|---|---|---|---|---|
| 2020 | Science Quiz - 1st prize | National | | | 19031D3115 | SRIRAMOJU MAHENDER |

5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

**CCST:** The centre has active cell of student council. This council consists of student elected class coordinator along with a teaching faculty. This student council actively participates in all activities of the institute with guidance of the teaching faculty coordinator. This council helps the teaching faculties as well as management of the institute both in academic as well as administrative activities as follows: - Coordination of academic activities throughout the semester - Coordination of co curricular and extracurricular activities smoothly - Coordination of industrial visits - Coordination of seminars/workshops by inviting external guests - Presenting the problems of students in front of teaching faculty as well as management - To assists teaching faculties heading various academic as well as administrative committees - Motivating the students to actively participate in various activities initiated by the Centre. Centre also provides the necessary support to student council for organization of any activity. Council helps the teaching faculty coordinators in many of the other committees as library, hostel, mess, grievance etc

**5.3 Alumni Engagement**

5.3.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words):

**YES (JNTUH-IST Alumni Association)**

The concept of alumni association evolved for needs from both the ends, i.e. academicians and professionals, in the aim of building a bridge between college life and career life, so that the fresher graduates are made proactive to face the current challenges of competitive professional world. Both the ends shall work hand in hand to help each other for achieving the goal. The idea took shape and formation of Alumni Association turned into reality.

Objectives:- 1. To provide a forum to establish a link between the alumni, staff and students of the Institute. 2. To enable the alumni to participate in activities that would contribute to the general development of the Institute and the Society. 3. To help the alumni with their technical and relocation problems. 4. To try to find employment opportunities to students and fellow alumni members in need. 5. To give institute prizes and scholarships, and render financial aid to needy and deserving students of the Institute. 6. To assist in conduction and organizing academic activities like conferences, workshops, technical symposiums. 7. To

contribute towards the welfare of the alumni. 8. To keep the alumni abreast of scientific and technological developments of national and global importance. 9. To generate funds to give scholarships to meritorious students and awards to toppers of all branches of engineering. 10. To arrange seminars and debates for technical guidance to students for knowledge and career Advancement. 11. To invest and deal with the funds of the Association. 12. To do such other lawful things as are conductive or incidental to the attainment of the above objectives and / or beneficial to the interests of the Institute and its Alumni. 13. To promote Entrepreneurship & Innovation among the students. 14. To help Institute for effective liaison to Industry

**CPS:**

From last two years the Institution has registered Alumni Association and have an overall strength of 50 to 60 members. Out of these members12 members are from our department (Centre for Pharmaceutical Sciences). Alumni members were invited for various conferences, workshops and seminars to share their experiences with the current batch students how to co-up with the present pharma market. Special Alumni meets were are conducted to discuss regarding the up gradation of curriculum activities, industry – institution collaboration for research work.

5.3.2 No. of ~~registered~~ enrolled Alumni: **184**

5.3.3 Alumni contribution during the year (in Rupees) **: 92000/- (Rs.500/-Each)**

5.3.4 Meetings/activities organized by Alumni Association **: YES**

**Institute level , Alumni meeting was organised on Feb 2nd 2019 at IST seminar hall , IST, JNTUH ,**

## CRITERION VI –GOVERNANCE, LEADERSHIP AND MANAGEMENT

### 6.1 Institutional Vision and Leadership

6.1.1 Mention two practices of decentralization and participative management during the last year (maximum 500 words)

**Vision**

Imparting technical education that encourages independent thinking develops strong domain of knowledge, hones contemporary skills and positive attitude towards holistic growth of young minds.

**Decentralization**

The institution has a mechanism of providing operational autonomy to various functionaries in order to ensure a decentralized governance system.

**1. Director Level**

The Director in consultation with the Teachers' Council nominates different committees for planning and implementation of different academic, student administration and related policies. All academic and operational policies are based on the unanimous decision of the governing body.

**2. Faculty level**

Every year, the composition of different committees is changed to ensure a uniform exposure of duties for academic and professional development of faculty members. Following are the different sub-committees which have been nominated by Teachers' Council :

- UGC PFMS & Seminar Proposal sub-committee
- Sub-committee for games and sports
- Journal and publication Sub- committee
- Cultural sub-committee

Following committees are constituted accordance to government guidelines:

- Counseling and Career Guidance and Placement Unit
- Grievance Redressal Cell
- Website committee
- Anti Ragging Committee
- Press & Media Sub- Committee

**3. Non-teaching staff level**

Suggestions of non-teaching staff are considered while framing policies or taking important decisions.

**Participative management**

The institution promotes the culture of participative management at the strategic level, functional level and operational level.

 **Strategic level**: The Principal, governing body and Teachers' council are involved in defining policies & procedures, framing guidelines and rules & regulations pertaining to admission, examination, discipline, grievance, support services, finance etc.

 **Functional level**: Faculty members share knowledge among themselves, students and staff members while working for a committee. Faculty members are involved in joint research and have published papers.

 **Operational level**: The Principal interacts with government and external agencies & faculty members maintain interactions with the concerned departments of affiliating university. Students and office staff join hands with the Principal and faculty for the execution of different academic, administrative, extension related, co- and extracurricular activities.

6.1.2 Does the institution have a Management Information System (MIS)?

Yes. MIS is used for- Accounts and financial works (e.g. Tally) - Institute accountant used to keep record of all financial on license software Tally which includes fees of students, operational expenses, equipment, furniture, maintenance etc.

• Staff attendance biometric- Staff attendance record is maintain by biometric attendance, registers

**6.2 Strategy Development and Deployment**

6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each**):**

❖ **Curriculum Development**

Curriculum designing and development is decided by the university. Director and Faculty members interact with the university and provide their views related to curriculum development.

The process involved in designing of the curriculum is as follows:

Initially UGC and AICTE regulations were followed for designing the curriculum based on Blooms taxonomy. Program assessment committee (PAC) collects the feedback about the program from all the stakeholders. The stakeholders include faculty, students, experts from academia, industry and research organizations, administration, alumni, parents and employer. Later the data obtained from regulatory authorities such as evaluation of students, their employability and scope for higher studies are also collected and used for revision of curriculum. This data is analyzed by the DAB in a series of brain storming sessions. Feedback obtained from the stakeholders and the observations made by PAC are submitted to the Department Advisory Board (DAB)/ Board of Studies for further evaluation and developments. The Board of Studies includes Head of the Department, faculty members, research experts, scientists, Industry personnel from different professional streams and also student representative. The Board of studies takes into consideration the vision and Mission of the institute, PEOs, POs and the inputs of DAB for refinement of the program curriculum. The final refinement and approval of the curriculum takes place in the BOS meetings. The approved copy of syllabus is communicated to the Director (IST) for approval in Board of Governors (BOG)/Academic council of IST. In the year 2015 Choice Based Credit System has been

introduced.

The program curriculum is evaluated by evaluation of student performance (Mid-term & End-term examinations, seminars and project work) and feedback obtained from the students directly. The curriculum is also evaluated in terms of opportunities for higher education and employment for the students and also based on alumni and employer survey. The Gaps identified in the curriculum are filled by regular revision of the syllabus and improvement in the instruction and evaluation methods.

❖ **Teaching and Learning**

1. Improvement of computer aided methods of teaching and learning. Faculty members have attended the workshop on MOOCs, E-content and open educational resources organized by UGC-HRDC.
2. Special lecture organized by Department wise.
3. Field tours organized by the Department for PG Students.
4. Enrichment of central library and departmental seminar libraries.

❖ **Examination and Evaluation**

Semester examinations are conducted by IST, JNT university. Department conducts internal assessment of students according to the university guidelines. Class tests/surprise tests, student seminars, interactive sessions, practical examinations, debates etc are conducted by departments to evaluate the students. Examination sub-committees and tabulation sub-committees have been formed by the faculty members for effective implementation of the evaluation reforms of the university.

❖ **Research and Development**

Encouraging joint research by faculty members, which has resulted in their national and international joint publications. Encouraging faculty members to undertake major and minor research projects and disbursement of received research funds for purchase of items without delay. Faculty members are presently undertaking major and minor research projects funded by DST, DBT, UGC, INDOUS and others.

❖ **Library, ICT and Physical Infrastructure / Instrumentation**

As a post-NAAC initiative, the college has encouraged the use of ICT based techniques of study by arts departments. Computers have been allotted for PG students & Research Scholars. The physical infrastructure has also received sincere attention from the college authority. In our Department 3 Classrooms are having Smart Boards (Interactive Panels).

❖ **Human Resource Management**

Students are encouraged to participate in seminars, special lectures, field tours etc to increase their skill and experience. Details can be found in the centre website.

 Centre organized, 5 workshop and 2 Guest lecturers to enrich students and staff in the academic year 2019-2020.

 Faculty members are encouraged to participate in trainings, workshops and staff development programmes.

Different sub-committees are nominated by faculty members to ensure academic and administrative

experience of faculty members.

❖ **Industry Interaction / Collaboration**

Faculty members have collaborated with national and international eminent academicians andresearchers and published research papers in the current year.

❖ **Admission of Students**

The admission process was partly online up to third counselling and students had to be physically present during the counselling. Admission of students commenced after declaration of results of degree examinations by different boards and the first merit list was prepared, according to the merit index online. Fully online admission system from application to the counselling process has ensured a transparent process and students have been admitted on the basis of merit.

6.2.2: Implementation of e-governance in areas of operations:

❖ **Planning and Development: NA**

❖ **Administration**

 Notices and circulars are uploaded in the IST website and communicated to different departments through e-mail from the office of the centers.

❖ **Finance and Accounts**

1. Salary of faculty members and staff is transferred directly to the bank account.

2. Tender is notified as per the government guidelines for purchase of items.

4. Payment for the work orders is done through PFMS according to government guidelines.

❖ **Student Admission and Support**

- Applications are submitted for admission to different courses through the online admission portal.

 Online counselling is scheduled based on the merit list of candidates.

E-mail ids and contact numbers of all members of Anti Ragging Committee, Anti Ragging Squad and Internal Complaints Committee have been uploaded to the department website and students can communicate to the members through e-mail.

❖ **Examination**

Examinations are conducted at the end of each semester. Department informs students about the university notices and circulars related to the examinations from time to time through student notice board, departmental notice boards and also verbally by the faculty members of the department. Department will conduct internal assessment of students and students are well informed about these internal examinations well in advance by the department. Internal assessment dates are also provided by the institute in the proposed academic calendar prepared at the beginning of each academic session.

**6.3 Faculty Empowerment Strategies**

6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

| Year | Name of teacher | Name of conference/ workshop attended for which financial support provided | Name of the professional body for which membership fee is provided | Amount of support |
|---|---|---|---|---|
| 2019 | Dr. A. Uma | Two day hands on workshop on Bioinformatics "National Level Competition for Bioscience Students in Association with Shaastra Fest IIT Madras Event" held at CBT, IST, JNTUHon 29th and 30th August 2019. | NA | TEQIP III |
| 2019 | Dr. A. Uma | One day training program on "Hands on Workshop on MATLAB Programming under finishing school on" at CBT, IST, JNTUH on 31st August 2019. | NA | TEQIP III |
| 2019 | Dr. A. Uma | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | NA | TEQIP III |
| 2019 | Dr. Archana Giri | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | NA | TEQIP III |
| 2019 | Dr. L.Saida | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | NA | TEQIP III |
| 2019 | Dr. CH. Kalyani | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | NA | TEQIP III |
| 2019 | Dr. K. Venkateshwara Reddy | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | NA | TEQIP III |
| 2019 | Dr. Suresh Babu | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | NA | TEQIP III |
| 2019 | Dr. P. Ranjit | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | NA | TEQIP III |
| 2019 | Dr. M. Anjaneyulu | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for | NA | TEQIP III |

| | | | | |
|---|---|---|---|---|
| | | Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | | |
| 2019 | Dr. B. Venkanna | Two daysWorkshop on"Current Research & Future Innovations in Drug Discovery for Genome Medicine" held at CBT-IST, JNTUH on 29th and 30th November 2019. | NA | TEQIP III |
| 2019 | Dr. A. Uma | Two day Workshop on"Sustainable packaging-Eco efficient & Value Creation"held at CBT-IST, JNTUH on 3rd and 4th December 2019. | NA | TEQIP III |
| 2019 | Dr. Archana Giri | Evaluation of biological activities of *Pimpinella Tirupatiensis* extracts and transcriptome analysis for mapping of terpenoid pathway, Shanghai University, China, 8th October 2019. | NA | TEQIP III |
| 2020 | Dr. A. Uma | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27th to 29th February 2020. | NA | TEQIP III |
| 2020 | Dr. Archana Giri | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27thto 29th February 2020. | NA | TEQIP III |
| 2020 | Dr. L. Saida | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27th to 29th February 2020. | NA | TEQIP III |
| 2020 | Dr. CH. Kalyani | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27th to 29th February 2020. | NA | TEQIP III |
| 2020 | Dr. K. Venkateshwara Reddy | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27th to 29th February 2020. | NA | TEQIP III |
| 2020 | Dr. Suresh Babu | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27th to 29th February 2020. | NA | TEQIP III |
| 2020 | Dr. P. Ranjit | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27th to 29th February 2020. | NA | TEQIP III |
| 2020 | Dr. M. Anjaneyulu | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27th to 29th February 2020. | NA | TEQIP III |
| 2020 | Dr. B. Venkanna | Natational Conference on Biotechnology & Bioengeering Trendsat JNTUH held on 27th to 29th February 2020. | NA | TEQIP III |
| | Dr. V. Himabindu | International conference | | 10000 |
| | Dr. V. Himabindu | International conference | | 5000 |
| | Dr.Ravivarma | International conference | | 10000 |
| 2019 | Dr. M. Sunitha Reddy | Women Occupational Health and Safety | TEQIP | |
| 2020 | Sri J.Venkatesh | Webinar - Applications on Geo-Spatial Technology | TEQIP-III | |
| 2020 | Sri Ballu Harish | GIS | TEQIP-III | Rs.1100.00 |

| | | | | |
|---|---|---|---|---|
| 2019 | Dr.B.Venkateswara Rao | 3rd World water Summit 2019, New Delhi | TEQIP-III | |
| 2019 | Dr.B.Venkateswara Rao | IGWC -2019, Roorkee | TEQIP-III | |
| 2019 | Dr.B.Venkateswara Rao | 1st Indian Near Surface Geophysics Conference & Exhibition, New Delhi | TEQIP-III | |
| 2019 | Dr.MVSS.Giridhar | National Conference on Recent Advances in Science & Technology , during May 15-17, 2019 at Assam Science and Technology University, Guwahati | TEQIP-III | |

6.3.2 Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

| Year | Title of the professional development programme organised for teaching staff | Title of the administrative training programme organised for non-teaching staff | Dates (from-to) | No. of participants (Teaching staff) | No. of participants (Non-teaching staff) |
|---|---|---|---|---|---|
| 2019 | Technical Skill Development Programme | IST,JNTUH | 9th July2019-13th July ,2019 | - | 30 |
| | | | | | |

6.3.3 No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

| Title of the professional development programme | Number of teachers who attended | Date and Duration (from – to) |
|---|---|---|
| Genome editing by CRISPR-Cas9 system" at IISC, Benguluru. | 01 (Dr. A. Uma) | 18th – 22th Nov 2019 |
| Train the Trainers on examination reforms organized by KLE Technological University, Hubbali. | 01 (Dr. L. Saida) | 17th – 20th Feb 2020 |
| Biophysical methods to study structure and functions of protiens and Nucleic acids organized by Centre for continuing education Indain Institute of Science Bengaluru. | 01 (Dr. M. Anjaneyulu) | 02 - 06th Dec 2019 |
| Orientation Programme | 09 | 26.08.2019-30.08.2019 |
| International Conference on Ecohealth and Environment Sustainability, | **1** | 24th to 26th February 2020 |
| NPTEL- Environmental Quality and Monitoring Analysis | **1** | Jan 2020 - March 2020 |
| An overview on funding agencies for Indian research scholars | 01 | 29-04-2019 |
| Two day national workshop on NBA-Outcome based Education and SAR filling | 02 | 24-05-2019 to 25-05-2019 |
| Workshop on MOOCS Programme | 01 | 06-07-2019 |
| Nano Biotech Networking Event TERI At TERI Gram, Gwal Pahari,Gurugram, Haryana | 01 | 07-02-2019 to 07-03-2019 |
| One Week Faculty Development Program on "Nano Science and Technology At Kurukshetra University, Kurukshetra, Haryana | 01 | 19- 08-2019 to 20-08-2019 |

| State | | |
|---|---|---|
| Professional Development Training at IIM Trichy | 01 | 23-9-2019 to 27-9-2019 |
| Professional Development Training at IIM Visakhapatnam | 01 | 09-12-2019 to 13-12-2019 |
| Training programme for the experts at Hindustan Institute of Technology and Science (Deemed to be University), Chennai | 01 | 24-02-2020 |
| Train the Trainers on Examination Reforms' at KLE Technological University, Hubballi, Karnataka | 01 | 17-02-2020 to 19-02-2020 |
| Workshop on web-based academic MISSPIU Maharashtra | 01 | 08-04-2019 |
| Two days training programme on TEQIP-III procurement management support systemBMS college of Engineering, Bengaluru | 01 | 15-04-2019 to 16-04-2019 |
| Refresher course on Drug discovery and formulation development clinical approach to health careUGC,HRDC,JNTUH | 01 | 20-05-2019 to 01-06-2019 |
| GIAN course on Medical prototyping using 3D printingNIT Warangal | 01 | 15-07-2019 to 19-07-2019 |
| AICTE sponsporedTwo week FDP program on Pharamaceutical Regulatory affairs and Intelluctual property rights, Centre for Pharmaceutical sciences,IST,JNTUH | 01 | 01-08-2019 to 14-08-2019 |
| One day workshop on Hands on MAT LAB programming under finishing school, Centre for BioTechnology,IST,JNTUH | 01 | 31-08-2019 |
| Faculty Development program on "Pharmaceutical Regulatory affairs and Intellectual Property rights" | 30 | 1/08/2019 TO 14/08/2019 |
| Latex training programme | 01 (Sri B.Harish) | April 29 to May 04 2020 |
| Research challenges and innovations in renewable energy systems | 01(Sri B.Harish) | May 11to 16 2020 Time:09am to 12pm |
| ICT TOOLS | 01(Sri B.Harish) | May 11to 16 2020 Time: 2PM TO 5PM |
| ARDUINO | 01(Sri B.Harish) | May 12 to 17th 2020(6pm to 7pm) |
| Webinar on digital image processing | 01 (Sri B.Harish) | 12-07-2020 |
| ORIENTATION PROGRAMME | 4 NO'S | 26-08-2019 TO 31-08-2019 (CLASS WORK COMMENCED FROM 03-09-2019) |
| | | |

6.3.4 Faculty and Staff recruitment (no. for permanent/fulltime recruitment):

| Teaching | | Non-teaching | |
|---|---|---|---|
| Permanent | Fulltime | Permanent | Fulltime/temporary |
| **Nil** | 01- Full time on contractual basis | **Nil** | **Nil** |

6.3.5 Welfare schemes for

| | |
|---|---|
| Teaching | FDP(Faculty Development Programme)<br>TEQIP Training Programmes |
| Non teaching | TEQIP Training Programmes |
| Students | Conferences, Workshops, Seminars |
| | |
| | |

**6.4 Financial Management and Resource Mobilization**

6.4.1 Institution conducts internal and external financial audits regularly
(with in 100 words each**)**

The Institution is a government institution. Financial audit is conducted by Accountants General (AG), Telangana, Government of Telangana state and the frequency of audit is once in a year.

6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year (not covered in Criterion III)

| Name of the non government funding agencies/ individuals | Funds/ Grants received in Rs. | Purpose |
|---|---|---|
| **NA** | **NA** | **NA** |

6.4.2 Total corpus fund generated: **NA**

**6.5 Internal Quality Assurance System**

6.5.1 Whether Academic and Administrative Audit (AAA) has been done?

| Audit Type | External | | Internal | |
|---|---|---|---|---|
| | Yes/No | Agency | Yes/No | Authority |
| Academic | yes | AICTE | Yes | TEQIP-III(performance audit) |
| Administrative | yes | AICTE | yes | TEQIP-III(performance audit) |

6.5.2 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges? (if applicable)

**NIL**

6.5.3 Activities and support from the Parent – Teacher Association (at least three)

1. Every year end of the semester parent teacher meet is organised.
2.Their feedback is taken to improve quality of education and other facility

6.5.4 Development programmes for support staff (at least three)

1. Support staffs are motivated to take participation in skill development program like PMKVY. Two staffs are

currently attending courses.
2. Insurance of all Non teaching staff.
3. Non teaching staff is promoted to attend workshops.

6.5.5 Post Accreditation initiative(s) (mention at least three)
Post-accreditation initiatives based on the examinations mentioned in the Peer team report:

**1. ICT should be increased in teaching learning process**

***Post accreditation initiative*:** The departments have been provided new computers and printers to increase the use of ICT enabled teaching and learning. Computer-aided methods are now used by majority of the departments to deliver lectures.

**2. Faculty should be encouraged to undertake F.I.P.**

In the current academic session all faculty members have participated in different faculty improvement programmes.

**3. The college should have some more smart classes**

Construction of three new smart classrooms (Department of Biotechnology) has been completed and teaching-learning process has started in these three smart classrooms.

Centre organises International/national workshops Conference to improve research culture in the Institute. Students and faculties from institute as well as from outside the institute used to present their Research paper. To enhance employability Industry Institute Interaction is strengthen.

**6.5.6**
a. Submission of Data for AISHE portal : (Yes )
b. Participation in NIRF : (Yes )
c. ISO Certification : (Yes )
d. NBA or any other quality audit : (Yes )

6.5.7 Number of Quality Initiatives undertaken during the year

| Year | Name of quality initiative by IQAC | Date of conducting activity | Duration (from------to------) | Number of participants |
|---|---|---|---|---|
| | **CNST** | | | |
| **2019** | **1st Meeting of the Internal Quality Assurance Committee (IQAC)** | **30-01-2020** | **11.00AM TO 01.00 PM** | **10** |

## CRITERIONVII –INSTITUTIONAL VALUES AND BEST PRACTICES

**7.1 - Institutional Values and Social Responsibilities NIL**

7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the CAY)

| Title of the programme | Period **(from-to)** | Participants | |
|---|---|---|---|
| **CNST** | | Female | Male |
| Equity Action Plan A Two-Day Workshop on "Sensitization of Socially Challenged Communities-Higher Education Under TEQIP-III | 07-08-2019 to 08-08-2019 | 40 | 60 |

| | | | |
|---|---|---|---|
| one day workshop on synthesis, characterization and applications of Nanomaterials on 01-02-2020 under university social responsibility | 01-02-2020 | 12 | 12 |

7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources

- The CWR, IST, JNTUH has taken up large scale conservation of rainwater by harvesting 10 crore liters on a normal rainfall year. This is first of its kind in the telangana state maintaining zero discharge of rain water from the campus. The constructed rainwater harvesting structures need minimal maintenance.

7.1.3 Differently abled (Divyangjan) friendliness

| Items Facilities | Yes/No | No. of Beneficiaries |
|---|---|---|
| Physical facilities | Yes | All |
| Provision for lift | Yes | All |
| Ramp/ Rails | Yes | All |
| Braille Software/facilities | No | - |
| Rest Rooms | Yes | All women staff & students |
| Scribes for examination | No | 1 or 2 ( if necessary) |
| Special skill development for differently abled students | No | All |
| Any other similar facility | | |
| **CWR** | | |
| Items Facilities | Yes/No | No. of Beneficiaries |
| Physical facilities | Yes | NIL FROM CWR |
| Provision for lift | Yes | All the students and staff of IST |
| Ramp/ Rails | Yes | All the students and staff of IST |
| Braille Software/facilities | Yes | NIL FROM CWR |
| Rest Rooms | Yes | All the students and staff of IST |
| Scribes for examination | Yes | YES IF SCRIBE IS REQUIRED THEN THEY CAN AVAIL THE FACILITY |
| Special skill development for differently abled students | Yes | NA |
| Any other similar facility | Yes | Value Added courses has been implemented in academic Year 2019-20 |
| | | ZYM, HEALTH CENTRE AND ETC |
| | | English for research paper writing Disaster management |
| | | Sanskrit for technical knowledge Value education |
| | | Constitution of India Pedagogy studies |
| | | Stress management by Yoga |
| | | Research Methodology and IPR |
| | | Personality Development through life |

| | | |
|---|---|---|
| | | enlightenment skills |

7.1.4 Inclusion and Situatedness

Enlist most important initiatives taken to address locational advantages and disadvantages during the CAY

| Year | Number of initiatives to address locational advantages and disadvantages | Number of initiatives taken to engage with and contribute to local community | Date and duration of the initiative | Name of the initiative | Issues addressed | Number of participating students and staff |
|---|---|---|---|---|---|---|
| | | | | | | |

7.1.5 Human Values and Professional Ethics

Code of conduct (handbooks) for various stakeholders

| Title | Date of Publication | Follow up (maximum 100 words each) |
|---|---|---|
| | | |

7.1.6 Activities conducted for promotion of universal Values and Ethics NIL

| Activity | Duration (from-------to-------) | Number of participants |
|---|---|---|
| TWO DAY WORKSHOP ON WOMEN OCCUPATONAL HEALTH & SAFETY, UNDER TEQIP-III | 22nd & 23rd of November 2019 | 10 |

7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)

**CBT:**

Tree plantation programmes are organized by NSS

**CWR**:

- The CWR, IST,JNTUH has taken up large scale conservation of rainwater by harvesting 10 crore liters on a normal rainfall year.
- This is first of its kind in the Telangana state maintaining zero discharge of rain water from the campus.
- The constructed rainwater harvesting structures need minimal maintenance.

**CCST:**

1. Rain water harvesting Institute has harvested the rain water flowing as waste through the slopes of open land. This has helped to increase the water level in nearby area.
2. Tree Plantation In every year , institute conducts the activity of tree plantation with the help of NSS (National Social Service) cell. This helps to protect the environment as well as to develop the environmental awareness in between the students.

**7.2 Best Practices**

Describe at least two institutional best practices

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

**http://jntuhist.ac.in/**

**CCST:**

1. Academic Audit:

i ) Academic audit conducted once in every semester . every faculty member maintains course files for the theory as well as laboratory subjects. Following are placed in course files for audits

- Attendance record
- Internal marks statement
- Copies of test question papers
- Samples of answer papers
- Assignments
- Laboratory manuals.

2. Objectives of practices

-to ensure every faculty member is performing well in teaching and research

-to give feedback to faculty members on area which need improvement

**CNST:**

**Best practices of the Centre for Nanoscience and Technology:**

- Helping and mentoring for Slow Learners
- Evaluation & Monitoring of learning Capabilities :
  - Assignments, Seminar reports, Project reports
  - Involvement in R&D projects, seminars & conferences
  - Visits to Industries, R&D laboratories and Field studies
- Encourage Faculty to Carry out Research and Development Projects.
- To Make the Department as a Centre of Excellence in R&D Activities.
- MoUs with Reputed Educational and R&D Institutions in India as well as Abroad.
- Patenting of innovative works.
- Encourage students towards Entrepreneurship
- M.Tech. students are encouraged to do projects (Lab curriculum) in the center and publish in a peer reviewed journals

**INNOVATIONS USEFUL FOR PEOPLE OR ADMINISTRATORS DURING COVID 19 PANDEMIC**

- Dr. K Venkateswara Rao Professor &Head, CNST, IST, JNTUH made research to eradicate Covid19 Virus with the help of nano materials in collaboration with Diskha mineral company Hyderabad.
- Preparation of Nanosanitizers using Hydrogen peroxide and Nanosilver in collaboration with D Nanotechnologies Hyderabad.
- Preparation of Environmental sanitizers.
- Source links: https://www.youtube.com/watch?v=kXgeRG0pKPI&feature=youtu.be

  https://www.youtube.com/watch?v=uBky4S4K3I4&feature=youtu.be

- Dr. CH Shilpa Chakra, Assistant Professor, CNST,IST,JNTUH made efforts for covid-19 by 3D printing PPE kits for doctors and concerned health care workers and Police.
- Submitted DST-SERB short Term project for Covid-19.
- Source link:https://www.youtube.com/watch?v=dCwy8lKHpZY&feature=youtu.be
- Submitted collaborative project proposal under RashtriyaUchchatarShikshaAbhiyan (RUSA 2.0),Ministry of Human Resource Development on " Printable Energy Storage Device for portable devices based on nanomaterials" with Yogi Vemana University.

Submitted collaborative project proposal under RashtriyaUchchatarShikshaAbhiyan (RUSA 2.0), Ministry of Human Resource Development on "3D printing, Design and Development of an efficient Polyethylene Glycol coated Zinc Oxide Nanoweapon to fight against COVID-19" with Yogi Vemana University.

**CWR:**

- In its efforts towards sustainability, CWR, IST, JNTU Hyderabad has established a robust Rainwater Harvesting Systems in the campus. So far the Institute is able to harvest around 6 crore liters of rainwater. This made IST, JNTUH stand resilient to its water demands in spite of experiencing weak monsoon this year.
- Rainwater Harvesting initiatives by Dr.M.V.S.S.Giridhar of CWR, IST, JNTUH have earned applauds from various Universities, administrative bodies, Media and Local Communities. As IST, JNTUH has organized various Workshops, Conferences & Awareness programs, these structures served as demonstrative models for students, environmentalists, professionals and practitioners.
- In championing the cause of Water Conservation and Awareness, The Institute of Science and Technology has taken up free consultancy projects for rainwater harvesting in Tirumala Tirupathi Devastanam, Sri .Venkateswara University, Tirupathi Municipal Corporation and Local residential Communities of Hyderabad in Pragathi Nagar, Matru shree Colony etc.

**7.3 Institutional Distinctiveness**

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust Provide the weblink of the institution in not more than 500 words

**http://jntuhist.ac.in/**

**Placements details**

| Academic Year | No. of 1st year Students intake in the year | No. of 1st year students admitted in the year | Academic Year | No. of students Graduating in minimum stipulated time | No. of students placed | Midian Salary of Placed Graduates per annum (Amount in Rs.) | Midian Salary of Placed Graduates per annum (Amount in words) | No. of students selected for Higher Studies |
|---|---|---|---|---|---|---|---|---|
| **CENTRE FOR BIOTECHNOLOGY** | | | | | | | | |
| 2016-17 | 100 | 45 | 2017-18 | 43 | 21 | 1.8 Lakhs | One Lakh eighty thousand | 8 |
| 2017-18 | 74 | 57 | 2018-19 | 50 | 4 | 2.4 Lakhs | Two Lakh fourty thousand | - |
| 2018-19 | 74 | 59 | 2019-20 | 51 | - | - | - | - |
| | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CENTRE FOR CHEMICAL SCIENCES AND TECHNOLOGY** | | | | | | | | |
| 2016-17 | 75 | 61 | 2017-18 | 34 | 19 | 2.9 Lakhs | Two Lakhs Ninety Thousand Per Annum | 1 |
| 2017-18 | 68 | 41 | 2018-19 | 53 | 12 | 2.4 Lakhs | Two Lakhs Fourty Thousand Per Annum | 2 |
| 2018-19 | 68 | 53 | 2019-20 | 56 | 10 | 2.2 lakhs | Two Lakhs Twenty Thousand Per Annum | - |
| **CENTRE FOR ENVIRONMENT** | | | | | | | | |
| 2016-17 | 48 | 37 | 2017-18 | 28 | 17 | 2.5 Lakhs | Two Lakhs Fifty Thousand | 4 |
| 2017-18 | 48 | 38 | 2018-19 | 28 | 15 | 3.84 Lakhs | Three Lakhs and Eighty Four Thousand Per Annum | - |
| 2018-19 | 36 | 32 | 2019-20 | 20 | 6 | 3.0 lakhs | Three Lakhs per Annum | - |
| **CENTRE FOR NANO SCIENCE AND TECHNOLOGY** | | | | | | | | |
| 2016-17 | 36 | 29 | 2017-18 | 13 | 11 | 3.5 Lakhs per annum | 3.5 Lakhs per annum | 4 |
| 2017-18 | 18 | 17 | 2018-19 | 9 | 9 | 3.5 Lakhs per annum | 3.5 Lakhs per annum | 1 |
| 2018-19 | 18 | 14 | 2019-20 | 9 | 6 | 3.5 Lakhs per annum | 3.5 Lakhs per annum | - |
| **CENTRE FOR PHARMACECUTICAL SCIENCES** | | | | | | | | |
| 2016-17 | 54 | 47 | 2017-18 | 53 | 24 | 1.8 Lakhs | One Lakh Eighty Thousand Per Annum | 1 |
| 2017-18 | 54 | 47 | 2018-19 | 47 | 23 | 1.6 Lakhs | One Lakh Sixty Thousand Per Annum | 1 |
| 2018-19 | 54 | 51 | 2019-20 | - | - | - | - | - |
| **CENTRE FOR SPATIAL INFORMATION TECHNOLOGY** | | | | | | | | |
| 2016-17 | 36 | 34 | 2017-18 | 15 | 7 | 4.0 lakhs | Four Lakhs per Annum | - |
| 2017-18 | 36 | 30 | 2018-19 | 18 | 5 | 4.0 lakhs | Four Lakhs per Annum | - |
| 2018-19 | 18 | 17 | 2019-20 | 10 | 5 | 4.0 lakhs | Four Lakhs per Annum | - |

| CENTRE FOR WATER RESOURCES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2016-17 | 18 | 23 | 2017-18 | - | 3 | 2.5 Lakhs | Two lakhs fifty thousand | - |
| 2017-18 | 17 | 17 | 2018-19 | - | 4 | 5.5 Lakhs | Five lakhs fifty thousand | - |
| 2018-19 | 17 | 17 | 2019-20 | 2 | 4 | 5.5 Lakhs | Five lakhs fifty thousand | - |

**Training programmes held for students:**

- M/s T.I.M.E (Triumphant Institute of Management Educational Pvt Ltd), Hyderabad as service provider is extending GATE training to the students of IST (Institute of Science and Technology) for the Academic Year 2019-2020 and 2018-2019 in the month of November, December,2019 and January,2020.
- VYAKTI VIKAS KENDRA INDIA as service provider is extending Art of Living-SELP (Student Excellence & Learning Program) to the students of IST (Institute of Science and Technology) for the Academic Year 2019-2020 and 2018-2019 during 19th-26th Aug, 2019 & 28th Aug - 5th Sep, 2019.

**Transition rate of PG Students(2019 batch):**

| S.no | Category/Gender | No of Total students | No. of students passed | % of the students passed from total students |
|---|---|---|---|---|
| 1. | SC | 18 | 14 | 78% |
| 2. | ST | 9 | 5 | 55.5% |
| 3. | Female | 38 | 34 | 89.5% |

## 8.Future Plans of action for next academic year (500 words)

### Centre for Biotechnology (CBT)

Development of World class laboratory facility w.r.t Molecular biology, Chemical engineering and Microbiology

To generate more Entrepreneurs from the centre to start industries in biotechnology and allied area

Continuing the practice of generating highly skilled human resources to cater to the research and teaching needs of the country

To achieve the goal of self sustenance

Encouraging more participation from the industry for infrastructure and research grants

Supporting centre for Atal incubation centres

### Centre for Chemical Science & Technology (CCST)

1) Centre has planned to deliver the outcome based education more effectively.

2) Centre has planned to sign more number of MOU's with the various industries as well as premium institutes. With the help of this; sharing of expertise and facilities will be focused prominently. This will help both the students as well as faculty to be in touch with new technologies as well as research methodologies.

3) Centre has planned to carry out more number of trainings, workshops and submission of funding proposals so as to have overall upliftment of the institute.

4) The continuous assessment of the teaching faculty will be carried out with the help of weekly report submitted by individual faculty duly signed by HOD.

5) Centre has planned to enhance career guidance to students.

6) Centre will maintain student academic and mentoring record.

7) Centre is planning to provide infrastructure comparable to international standards.

8) Centre has planned to strengthen the cooperation among the Stakeholders like Students, faculty, parents and employers etc.,

9) Centre is focusing more on area specific research aimed at meeting national needs.

### Centre for Environmrnt (CEN)

1. We have introduced environmental modeling course in the M.Tech Environemtnal management program. To give practicel exposure to the students, these softwares like visual modflow and airmod are essential.

2. In the present curriculum we have introduced applied Geomatics course in M.Tech EGM and GST for smart city planning and development. This requires advanced laboratory facilities and software to process high resolution images for feature extraction.

3. Photogrammetric suite with hardware and software will make students to learn and execute research on application areas of DEM, DTM and DSM. Photogrammetry is generally used for thr processing of raw imagery through to the creation of geospacial data products such as digital terrain models, 3D features, and digital orthophotos.

4. Renovation of labs: Water lab and waste water treatment labs needs renovation as all the wrok benches, fume hoods, exhaust fans, curtains and racks were spoiled due to chemicals. Cold room is also necessary for sample preseravation.

5. Al the hardware and computer systems in the department nee to be connected in LAN and with good networking platform. As the teaching and learning is going to be on virtual mode in the coming days, establishment of LAN may facilitate students to log in and work on mechines simultaniusly using teams.

## Centre for Nano Science and Technology (CNST)

1. To undertake and realize various nano based devices like Nanosensors etc for the benefit of public at large.
2. To produce researchers in the field and generate experts in the applications of Nanotechnology for devices.
3. To carry out the basic and applied research in the field of Nanotechnology.
4. To establish a central research facilities for Nanotechnology based systems and make it available for Research institutes as well.
5. Centre is planning to conduct A One Week AICTE - TEQIP-III Funded STTP Programme on Synthesis, characterization and its applications of Nanomaterials in year 2020.

## Centre for Pharmaceutical Sciences (CPS)

Future plans of the institute are aiming to procure sophisticated equipments to implement new experiments for regular curriculum. Implementation of new teaching methodologies for the faculty Viz. Flip flop methods and Online teaching methods. Improving the knowledge and skills of the faculty by inducting them to enroll MOOCS courses. The skills of both teaching and Non-teaching staff are refreshed by various training programs and workshops.

## Centre for Spatial Information Technology (CSIT)

The Centre is planning to host a set of conferences in the upcoming year. The objective of these research is to serve as inter-disciplinary and multi-disciplinary avenues for exchange of best research practices and research outcomes, for the benefit of the corporate professionals, industry practitioners, academicians and researchers at large.

## Centre for Wat er Re sources (CWR)

Future plans of the Centre are primarily aiming at scaling the intellectual environment of the institute. This includes aiming at inducting a better quality of students, faculty and intellectual output. The institution strongly believes that academic research can strongly contribute to corporate decision making and has a well-developed research plan for the upcoming year.

The Centre plans to host a set of international conferences in the upcoming year. The objective of these research based forums will be to serve as inter-disciplinary and multi-disciplinary avenues for exchange of best research practices and research outcomes, for the benefit of the corporate professionals, industry practitioners, academicians and researchers at large.

*Name* _____ *Name* _____

_____ _____

*Signature of the Coordinator, IQAC* *Signature of the Chairperson, IQAC*

_____***_____