



NEWSLETTER

From 1st July 2021 to 30th June 2022

DEPARTMENT OF CHEMICAL ENGINEERING JNTU COLLEGE OF ENGINEERING HYDERABAD

(Autonomous)

Kukatpally, Hyderabad – 500085

VISION

To be recognized as one of the top 10 institutes in the country offering technical education, sustaining and improving its repute of UG programmes, expanding need based PG and research programmes with global outlook, synergising teaching and research for societal relevance

MISSION

1. To identify technological advancements and build the right level of skills at the right time contributing to the industrial and national growth.
2. To identify and keep abreast with the state of the art technology maintaining its legacy of striving for excellence in higher education.
3. To promote world class research of local relevance to society.
4. With a research community of professors, research fellows and research centres, expand the scale and multidisciplinary character of its research activities.
5. With a global outlook strive for collaborations to network with International Universities and National Institutes of Research and Higher Learning.



JNTU COLLEGE OF ENGINEERING HYDERABAD

DEPARTMENT OF CHEMICAL ENGINEERING



VISION:

To be a premier chemical engineering department meeting the needs of academia, industry and society through quality education and innovative research.

MISSION:

1. Provide a comprehensive learning ambience in sciences, chemical and allied engineering.
2. Impart principles of sustainability and stimulate the evolution of environment friendly techniques and processes for the benefit of society.
3. Promote leadership qualities and team work through collaborations.

| PROGRAM EDUCATIONAL OBJECTIVES (PEOs) | |
|--|--|
| PEO-1 | Achieve innovation in research, education and administration in multi-discipline environment. |
| PEO-2 | Obtain leadership positions in prestigious organizations. |
| PEO-3 | Exhibit high ethical standards, team work with continuous learning to cater the ever changing professional needs. |
| PEO-4 | Pursue personal development through acquiring knowledge, skills and attitude. |
| PROGRAM OUTCOMES (POs) | |
| 1 | Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. |
| 2 | Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural science, and engineering sciences. |
| 3 | Design/Development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. |
| 4 | Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. |
| 5 2. | Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. |
| 6 3. | The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice. |
| 7 | Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. |
| 8 4. | Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. |
| 9 5. | Individual and in team: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. |
| 10 | Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, give and receive clear instructions. |
| 11 | Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. |
| 12 | Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. |
| PROGRAM SPECIFIC OUTCOMES (PSOs) | |
| PSO-1 | Interdisciplinary Approach: The Students will be able to apply chemical engineering principles to interdisciplinary areas like nanotechnology, environmental & energy engineering, Process safety |
| PSO-2 | Modeling & Simulation: The Students will be able to work on modeling, simulation & optimization of chemical processes using MATLAB & PRO-II software |

List of Programs Offered by the College/Academic Unit with Intake:

| Sl. No. | Name of the UG/PG Programme | Sanctioned In take |
|---------|-------------------------------------|--------------------|
| 1 | B.Tech. (UG)- Chemical Engineering | 60 |

List of Faculty members: (Name and Designation)

| S.No. | Name of the Faculty | Designation |
|-------|---------------------|-------------------------|
| 1 | Dr. S. Devaki Rani | Professor & Head |
| 2 | Mr. Dipankar Das | Assistant Professor (C) |
| 3 | Dr. Ch. Ramesh | Assistant Professor (C) |
| 4 | Mrs. P. Sowmya | Assistant Professor (C) |

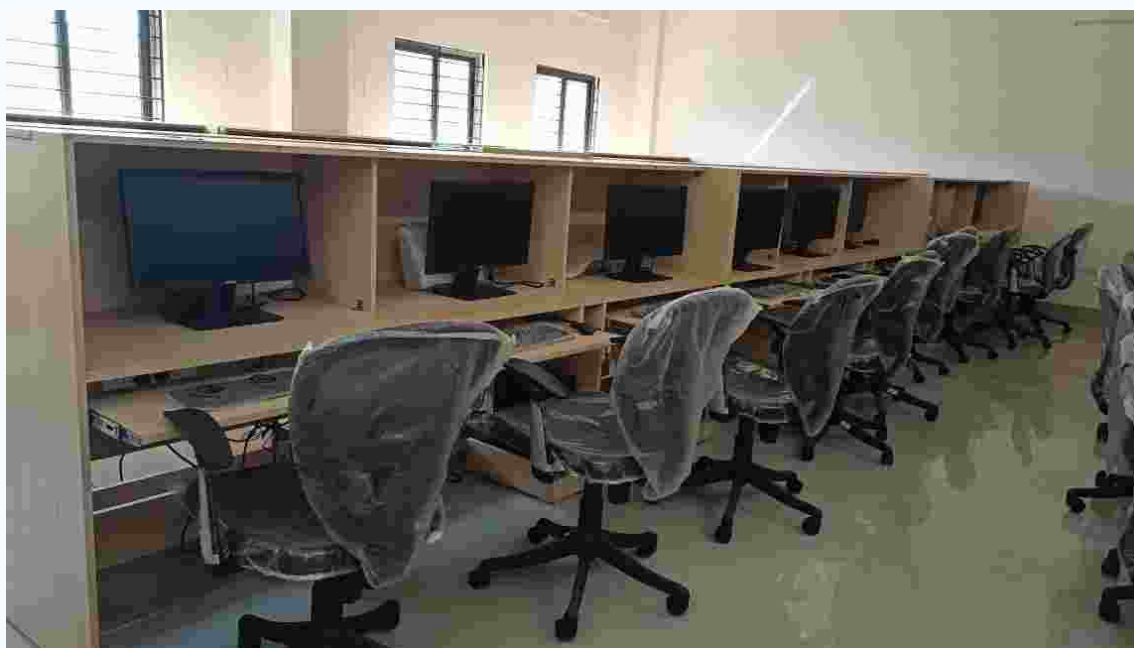
Department Laboratory:

Instrumentation & Process Control Lab

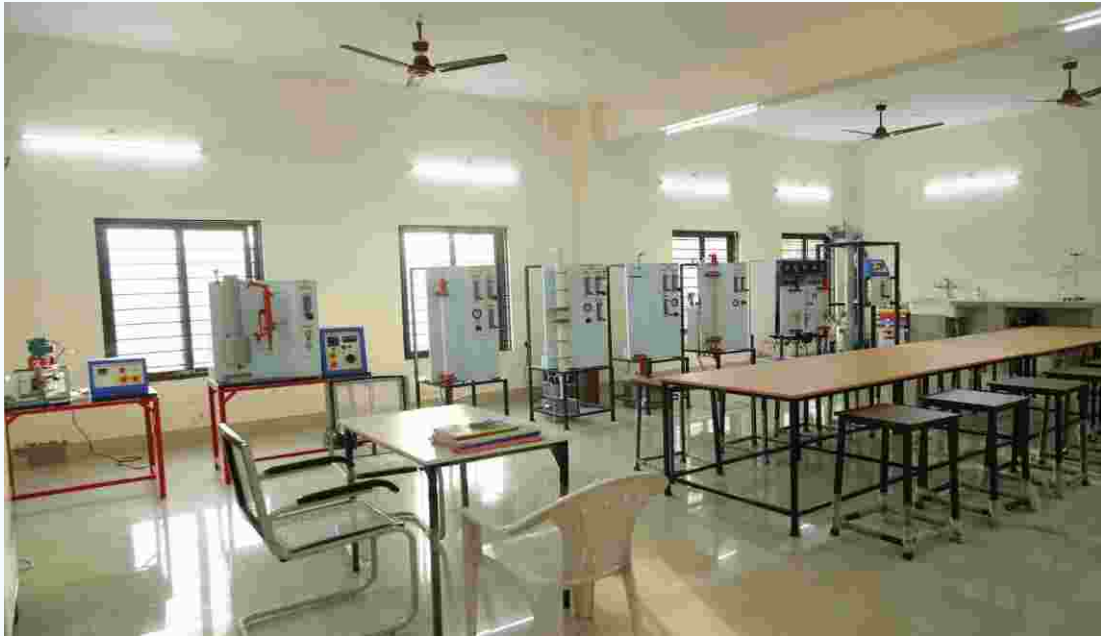


Instrumentation & Process Control Lab

Process Simulation Lab:



Mass Transfer Operations Lab:



Chemical Reaction Engineering Lab:



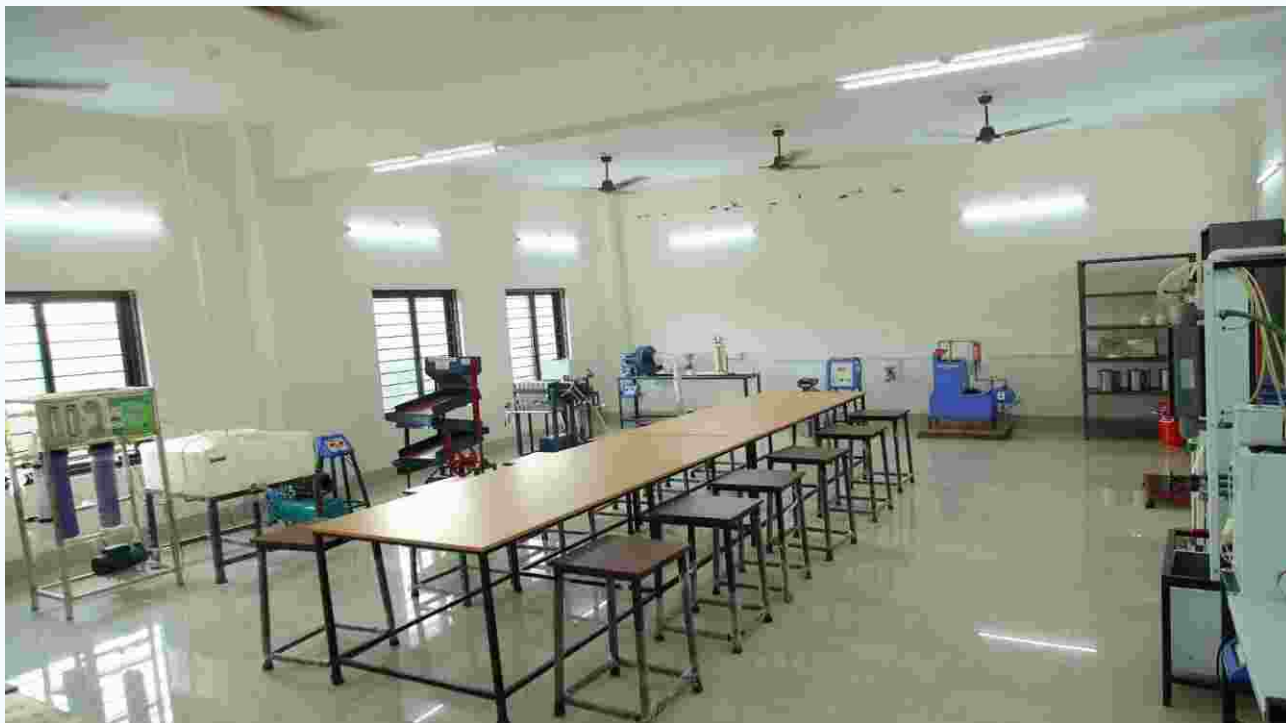
Chemical Reaction Engineering Lab

Fluid Mechanics Lab:



Fluid Mechanics Lab

Mechanical Operations Lab:



New Infrastructure Development in the Dept./College:

| S. No. | Date | Details of the Infrastructure setup(Creation of new labs, new facilities etc.) | Quantity | Unit Cost | Total Cost for the Set-up (Rs. in lakhs) |
|--------------|------------|--|----------|------------------------|--|
| 1 | 26.10.2021 | Lab Tables (Creation of new facilities in labs) | 6 Nos | Rs.7,500/- | Rs.45,000/- |
| 2 | 27.10.2021 | Class room Dual desks (Creation of new Classroom) | 80 Nos | Rs.5,893/- | Rs.4,71,366/- |
| 3 | 08.04.2022 | Glass door Almirah (for Library) | 01 No | Rs.11,650/- | Rs. 11,650/- |
| 4 | 13.06.2022 | Steel Almirah | 02 Nos | Rs.11,350/- | Rs.22,700/- |
| 5 | 13.06.2022 | Staff Chairs „S□ Type | 04 Nos | Rs.1,360/- | Rs.5,440/- |
| 6 | 13.06.2022 | Staff Tables | 03 Nos | Rs.12,360/- | Rs.37,080/- |
| 7 | 13.06.2022 | White boards for labs | 04 Nos | Rs. 2,799/- 3,303/- | Rs.13,211/- |
| 8 | 13.06.2022 | Green ceramaic chalk board | 01 Nos | Rs.11,520/- | Rs.11,520/- |
| 9 | 13.06.2022 | White ceramaic chalk board | 01 Nos | Rs.8,640/- | Rs.8,640/- |
| Total Amount | | | | | Rs. 6,26,607/- |

New Equipment/Software Installed:

- MAT LAB software installed in the systems (24No.s) in department computer lab during February/March 2022.
- Installation of internet ports during February/March 2022.

Value added course offered by CHEMICAL ENGINEERING department for the year 2021-22

| Department | Name of the value-added courses offered (with 30 or more contact hours) | Year of Offering | Duration of the course | Number of students enrolled in the year | Number of Students completing the course in the year |
|----------------------|---|------------------|------------------------|---|--|
| Chemical Engineering | Matlab Simulation Software | 2021-22 | 30 hours | 40 | 30 |
| Chemical Engineering | Municipal Solid Waste Management | 2021-22 | 30 hours | 23 | 22 |
| Chemical Engineering | Carbon Sequestration | 2021-22 | 30 hours | 29 | 28 |

FFaculty Achievements:

Details of Webinars/Conferences/Seminars/Workshops/ Refresher Courses/Orientation

Courses/ FDPs Attended by the Faculty:

- **Mr. Dipankar Das, Assistant Professor (C)** attended 3-Day Online Workshop on “Procedures and Preparation of SSR for NAAC” organized by IQAC, JNTUH, Hyderabad, April 21st - 23rd, 2022.
- **Mr. Dipankar Das, Assistant Professor (C)** attended a Two-Day online workshop on “Prediction Tools in Chemical and Bioprocess Engineering” organized by Hindustan Institute of Technology and Science, Chennai (In association with Indian Institute of Chemical Engineers), May 30th - 31st 2022.
- **Mr. Dipankar Das, Assistant Professor (C)** attended 2-Day National conference on “Advancement in Green Energy Production, Environmental Hazard Reduction and its Sustainability” organized by School of Engineering & Technology, GIET University, Gunpur-765022, Odisha, June 10th - 11th 2022.
- **Mrs. P. Sowmya, Assistant Professor (C)** attended a One-week GIAN Course on “Greener and Cleaner Ultrasonic Process for Nanomaterials and Nano pharmaceuticals” organized by National Institute of Technology Warangal, June 27th to July 01st, 2022.
- **Dr. Ch. Ramesh, Assistant Professor (C)** attended UGC- sponsored on “Faculty Induction Programme - 8” organized by Human Resource Development Centre (HRDC) JNTUH, January 24th to February 28th, 2022.
- **Mr. Dipankar Das, Assistant Professor (C)** received **appreciation** from Indian Institute of Chemical Engineers-Hyderabad Regional Centre for “**Outstanding Contribution to the Student Chapter**” during July 2021 to June 2022





Student Achievements:

i) Prizes/Awards for outstanding performance in Academic/Cultural Activities:

| Sl. No. | Name of the Dept./Centre | Roll No. | Name of the Student | Exam Qualified | Rank Secured | Registration number |
|---------|--------------------------|------------|----------------------|----------------|--------------|---------------------|
| 1 | Chemical Engg. | 18011A0802 | A. Sravya | GATE | 1647 | CH22S41408438 |
| 2 | | 18011A0807 | Banoth Jaggu Naik | GATE | 4482 | CH22S41408534 |
| 3 | | 18011A0811 | Cheema Nikhil Teja | GATE | 4676 | CH22S41405528 |
| 4 | | 18011A0812 | Chennuri Srilekha | GATE | 2434 | CH22S41407620 |
| 5 | | 18011A0828 | K. Hreethika Rathode | GATE | 3633 | CH22S41407861 |
| 6 | | 18011A0829 | Kollu Nkhil Goud | GATE | 1144 | CH22S41408306 |
| 7 | | 18011A0831 | K. Santhosh Kumar | GATE | 1790 | CH22S41408102 |
| 8 | | 19015A0805 | Chelimetri Prasad | GATE | 2251 | CH22S41408682 |

Placement Details -2022

| S. No. | Roll Number | Name of the Student | Name of the Organization | Package |
|---------------|--------------------|----------------------------|--|---------------------|
| 1 | 18011A0802 | AchantaSravya | Worely | 3.9 LPA |
| 2 | 18011A0808 | Boga Sampath | Emerson/ Wipro-Elite | 3.5 LPA |
| 3 | 18011A0809 | Budde Dharani | TCS | 3.5 LPA |
| 4 | 18011A0810 | BuggaSravani | Wipro-Turbo | 5.5 LPA |
| 5 | 18011A0812 | ChennuriSrilekha | ITC | 7.4 LPA |
| 6 | 18011A0813 | Chiluka Vani | ITC/ Mindtree | 7.4 LPA |
| 7 | 18011A0814 | DeepikaMantrala | Worely | 3.9 LPA |
| 8 | 18011A0817 | Gangadhara Krupa | Campus Job (Akash) | 7.25 LPA |
| 9 | 18011A0819 | Golla Gopal | Coramandel | 3.5 LPA |
| 10 | 18011A0822 | ImmadiKeerthana | ITC | 7.4 LPA |
| 11 | 18011A0823 | JatothuMajilal | Wipro-Elite/ Coramandel | 3.5 LPA |
| 12 | 18011A0828 | K. HreethikaRathode | Wipro-Elite | 3.5 LPA |
| 13 | 18011A0831 | K. Santhosh Kumar | Emerson/ Wipro-Elite/ Deccan fine Chemicals | 3.5 LPA/ 3.4 LPA |
| 14 | 18011A0832 | KuthuruBhargavi | Emerson/ Wipro-Elite | 3.5 LPA |
| 15 | 18011A0833 | LingutlaPrudhviTeja | ITC | 7.4 LPA |
| 16 | 18011A0834 | MangaliAkhila | Mind Tree | 4 LPA |
| 17 | 18011A0835 | MaramAnupama | Acmegrade | 3.5 LPA |
| 18 | 18011A0837 | MD Habeeb Ur Rahman | Wipro-Elite | 3.5 LPA |
| 19 | 18011A0838 | Mirza Salman Baig | Mind Tree | 4 LPA |
| 20 | 18011A0839 | Mohammad Afroze | ITC | 7.4 LPA |
| 21 | 18011A0841 | N. Bharath Kumar | Deccan Chemicals | 3.4 LPA |
| 22 | 18011A0845 | P. Naga Sai Sri Harika | Manali Petro Chemicals | 4.3 LPA |
| 23 | 18011A0846 | Pokala Ajay Kumar | Mind Tree | 4 LPA |
| 24 | 18011A0847 | PullaKalyani | Wipro-Elite | 3.5 LPA |
| 25 | 18011A0849 | RayalaMegana | ITC/ Wipro -Turbo | 5.5 LPA |
| 26 | 18011A0852 | Tabeti Jessy Spoorthy | Wipro-Elite | 3.5 LPA |
| 27 | 18011A0854 | TudumShruthi | Manali Petro chemicals | 4.3 LPA |
| 28 | 18015A0808 | L G Dinesh | Sai Life Sciences | 3.4 LPA |
| 29 | 18015A0815 | S. Hemanth Kumar | Sai Life Sciences | 3.4 LPA |
| 30 | 19015A0801 | Bhaskari Vinod | Sai Life Sciences | 3.4 LPA |
| 31 | 19015A0802 | BhukyaGeetha | Manali Petrochemicals | 4.3 LPA |
| 32 | 19015A0806 | JogdandePallavi | Manali Petrochemicals | 4.3 LPA |
| 33 | 19015A0808 | K. SreeChandana | Manali Petrochemicals | 4.3 LPA |
| 34 | 19015A0809 | LakkisetiGopi | Deccan Chemicals | 3.4 LPA |
| 35 | 19015A0810 | NarsingaVenuprasad | Sai Life Sciences | 3.4 LPA |
| 36 | 19015A0812 | PingariPrarthana | Sai Life Sciences | 3.4 LPA |

Research Papers Published:

- Shivani Sutrave (18011A0850), Yekkaluri Snehasree Reddy (18011A0858), K John Steven Wesley (18011A0825)1, P N NikithaBharathi (18011A0842) IV B.Tech., Article title is “E-Waste: effects, management and disposal” *International Journal of Scientific Research in Engineering and Management (IJSREM)*, Volume no: 5, Issue no: 2582-3930, page range: 9 nos, October 10th 2021.



Research Papers Presented:

- P.N. NikithaBharathi & IV B. Tech.** (Roll No.18011A0842) is adjudged as the best presentation (3rd prize) in Technical Session...2A..during SCHEMCON 2021 annual congress on “E-Waste and its Harmful effects on Environment”. Organized by MANIT and IISER Bhopal, on 22nd - 23rd October 2021.

Expert Talks/Guest Lectures Organized for UG/PG Students by the Department:

- Expert Lecture on “Gas Separation using Adsorption: Process Design & Material Development” by Dr. Sasidhar Gumma, Professor, Dept. of Chemical Engineering, IIT Tirupathi on 11.03.2022

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JNTUH UNIVERSITY COLLEGE OF ENGINEERING HYDERABAD
(AUTONOMOUS)
DEPARTMENT OF CHEMICAL ENGINEERING

**GAS SEPARATION USING ADSORPTION:
PROCESS DESIGN AND MATERIAL
DEVELOPMENT**

11/03/2022 at 2:00 P.M.

SPEAKER
Dr. Sasidhar Gumma
Professor, Dept. of Chemical
Engineering, IIT Tirupathi

ORGANISED BY
Dr. T. Bala Narsaiah
Professor & Head of the chemical
Engineering Dept., JNTUH-UCHEH

- Department has conducted National Level Technical Symposium GENOS'2022 on April 12th and 13th 2022.
- Workshop on “Sustainable Waste Management” 7th April, 2022



- Inauguration of Souvenir by Principal, Vice-Principal, Head of the Department & IChE Secretary, during GENOS'22



Expert lecture on “Innovations in Science and Technology to Combat Covid-19 Pandemic and Water Scarcity”
on 2th April, 2022, by DrS.Sridhar , Principal Scientist , IICT-CSIR, Hyderabad



Expert Talks/Guest Lectures Organized for UG/PG Students by the Department:

- Dr. B. VenuBabu from University of Saskatchewan, Saskatoon, Canada. Webinar on “Career opportunities in Chemical Engineering: Current Trends” (on-line mode), 27.11.2021.



JNTUH GOLDEN JUBILEE CELEBRATIONS (1972-2021)
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
JNTUH COLLEGE OF ENGINEERING HYDERABAD(AUTONOMOUS)
DEPARTMENT OF CHEMICAL ENGINEERING
WEBINAR ON

Career opportunities in Chemical engineering: Current Trends

JOIN THE BELOW LINK:
meet.google.com/giw-awpt-hwd

DAY: SATURDAY
DATE: 27/11/2021

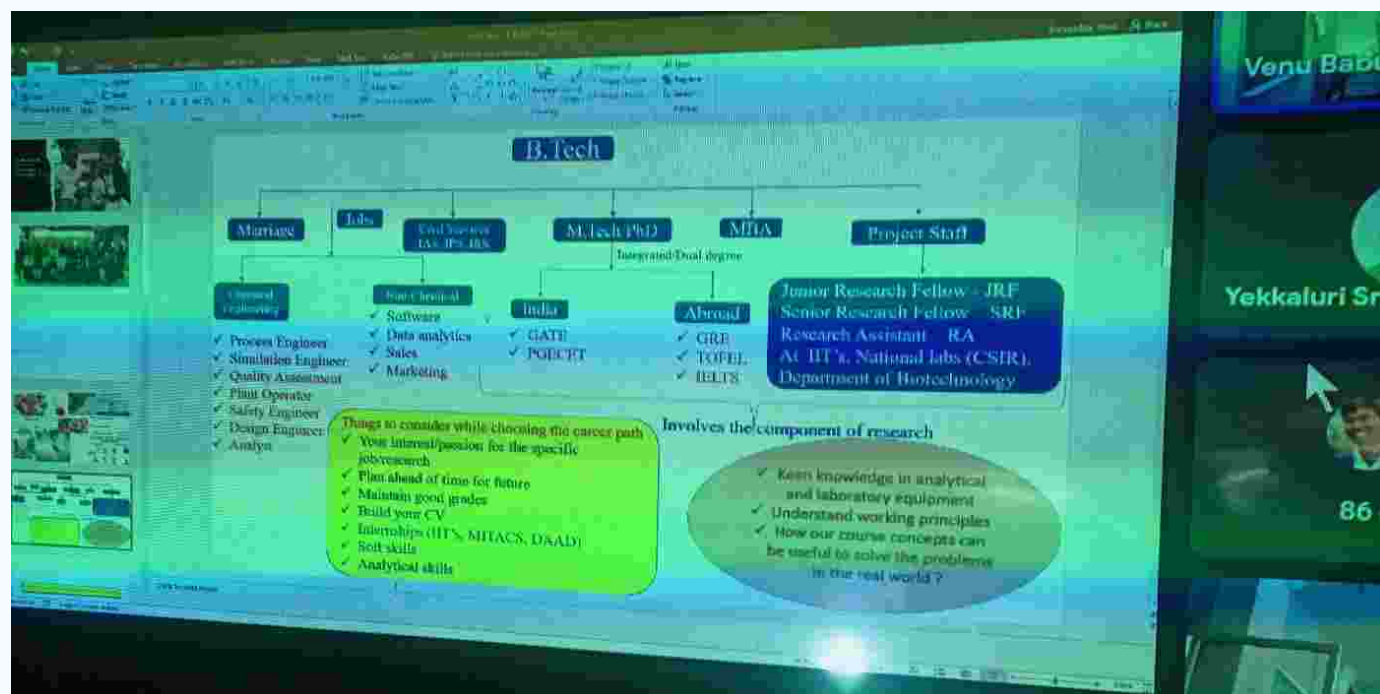
10:00 AM ONWARDS

E-Certificate will be issued to all the participants



Speaker
Dr. Venu Babu Borugadda
PDF at University of Saskatchewan,
Saskatoon, Canada.

Organized by
Dr. T. BALA NARSAIAH
Professor & Head of the Chemical
Engineering Department



- J. Siddhardha Kumar, Regional Director, Central Ground Water Board, Ministry of Jal Shakti, Govt. of India, Southern Region, Hyderabad. Interaction program on “Aquifer Mapping and Ground Water Management”, 20.12.2021.



- **Dr .MakrandPimplapure**, Founder and Managing director at Mak Speed Technologies, delivered a **Lecture on “Journey of Chemical Engineer”** for student, on May 6th2022, organized by IChE-HRC in association with Department of Chemical Engineering, JNTU Hyderabad,with organizing committee members Prof. Dr. T. Bala Narsaiah &co-ordinators Mr. Dipankar Das & Mrs. P. Sowmya.

JOURNEY OF CHEMICAL ENGINEER

05th MAY, 2022 at 6:00 PM



Dr. Makrand Pimplapure
Founder and Managing Director
Mak Speed Technologies

Dr. Makrand Pimplapure is the Founder and Managing Director at Mak Speed Technologies which specializes in offering solutions and products in New disruptive technologies. He is a seasoned leader with entrepreneurial spirit, an active industry leader, backed by over 20 years of extensive industry and entrepreneurship experience in the field of Chemical Engineering, Process Engineering, Process Engineering, and Plant Design.

He has a rich and extensive work life & wide range of professional experience in Chemical, Power, Chemical, Oil, Process, and Petrochemical. He is a chemical engineer by profession and a chemical engineer by heart.

Organizer

Institution Institute of Chemical Engineers, Hyderabad Regional Center (IChE-HRC)

Co-ordinators

Prof. Dr. T. Bala Narsaiah
Professor and Head of the Department of Chemical Engg.

Dr. H. Mohandas Rao
IChE-HRC Chairman, South Chapter

Dr. Ravi Chandra Telaparthi
Convener, Academic and Quality Committee, IChE-HRC

Mr. S. Sankar
Secretary, IChE-HRC

Dr. Sanjay Bhargava
Chairman, IChE-HRC

**Mr. Dipankar Das,
Dr. Ch. Ramani,
Mrs. P. Sowmya**
Co-ordinators

Topic

Journey of Chemical Engineer

Abstract

The speaker will share his journey from a chemical engineer to a leader in the field of Chemical Engineering, Process Engineering, and Plant Design.

JOURNEY OF CHEMICAL ENGINEER

05th MAY, 2022 at 6:00 PM

| Time | Details |
|----------------|--|
| 6:00 - 6:30 PM | Registration |
| 6:30 - 6:45 PM | Welcome address by Dr. Sanjay Bhargava, Chairman, IChE-HRC |
| 6:45 - 7:00 PM | Remarks by Dr. T. Bala Narsaiah , Professor & Head, Department of Chemical Engg., JNTU UCEH |
| 7:00 - 7:15 PM | Introduction of speaker by Mr. Dipankar Das, Co-ordinator |
| 7:15 - 7:30 PM | Lecture by Dr. Makrand Pimplapure , Founder and Managing Director at Mak Speed Technologies |
| 7:30 - 7:45 PM | Question & Answer Session |
| 7:45 - 7:55 PM | Vote of thanks by Mr. P. Sowmya , Co-ordinator |
| 7:55 - 8:00 PM | National Anthem |

- **Lecture on** “Interfacing Materials Science with Chemical Engineering for a Healthier Tomorrow” by Dr. DebitupaMitra, Assistant Professor, Dept. of Chemical Engg., BITS Pilani Hyderabad Campus, on 13.05.2022



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(AUTONOMOUS)
DEPARTMENT OF CHEMICAL ENGINEERING

o o o o ————— **Organising a Lecture on**

**"INTERFACING MATERIALS SCIENCE WITH CHEMICAL
ENGINEERING FOR A HEALTHIER TOMORROW"**

Date: 13/05/2022 at 11:30 A.M.



Organised by
Dr. T. Bala Narsaiah
Professor & Head
Dept. of Chemical Engg.,
JNTUH UCEH

Speaker
Dr. Debitupa Mitra
Assistant Professor
Dept. of Chemical Engg.,
BITS Pilani Hyderabad Campus

• **JNTUH CEH Library: Information about the Books/Journals/Online sources/ Unique Features / Facilities.**

Library Books:

| S.No | Subject Name | Title | Author Name | Publisher | Number of Copies |
|------|--|---|---|--|------------------|
| 1 | Introduction To Chemical Engg | Chemical Engg An Introduction | Morton. M.Denn | Cambridge University Press | 01 |
| 2 | Chemical Process Calculations | Chemical Process Principles | O.A. Hougen, K.M. Watson, R. A.Ragatz | Asia Publishing House | 01 |
| 3 | Chemical Engg Fluid Mechanics | Unit Operations Of Chemical Engg | W. L. Mccabe , J.C.Smith | Mc. Graw-Hill (3rd Edition) | 01 |
| 4 | Thermodynamics | Steam Tables With Miller Diagram(In Si Units) | R.S.Khurmi | S.Chand& Company Ltd | 01 |
| 5 | Heat And Mass Transfer | Analysis Of Mass Contactors & Heat Exchangers | T.W.F Russell, A.S. Robinson, N.J.Wagner | Cambridge University Press | 01 |
| | | Diffusion- Mass Transfer In Fluid Systems | E.L.Cussler | Cambridge University Press (3rd Edition) | 01 |
| | | Process Heat Transfer | Donald.Q.Kern | Mc. Graw-Hill | 01 |
| 6 | Chemical Reaction Engg | Chemical Reaction Engg | Octave Levenspiel | Wiley Eastern University (2nd Edition) | 01 |
| 7 | Instrumentation & Process Control | Automatic Process Control | Donald. P.Eckman | Wiley Eastern Limited | 01 |
| 8 | Process Modeling & Simulation | Mathematical Modelling & Simulation In Chemical Engg | M.Chidambaram | Cambridge University Press | 01 |
| | | Computational Simulation Tools In Engg | V.Ramesh Kumar, T.BalaNarsaiah,K.Ravi Chand | Bs Publications | 01 |
| 9 | Transport Phenomena | A Modern Course In Transport Phenomena | D.C.Venerus, H.C.Ottinger | Cambridge University Press | 01 |
| 10 | Chemical Engg Plant Design & Economics | Plant Design & Economics For Chemical Engg | M.S.Peters, K. D. Timmerhaus | Mc. Graw-Hill (3rd Edition) | 01 |
| 11 | Petroleum Refining & Petro-Chemicals | Petroleum Processing | V.P.Sukhanov | Mir Publishers | 01 |
| | | Instrumentation Manual Petroleum Processing & Petro-Chemical Industries | N.Komissarova | Mir Publishers | 01 |
| 12 | Material Science | Strength Of Materials | N.K.Mehta | Mir Publishers | 01 |
| | | Material Science & Metallurgy | Dr. O.P.Khanna | Dhanpat Rai & Sons | 01 |
| 13 | Energy Engg | Fuels & Combustion | S.P.Sharma Chander Mohan | Tata Mc. Graw-Hill | 01 |
| 14 | Optimization Methods | Optimization In Chemical Engg | Suman Dutta | Cambridge University Press | 01 |
