## DEPARTMENT OF CHEMICAL ENGINEERING

The Department of Chemical Engineering was established in the year 1997 and it is one of the oldest departments of the school. The department offers undergraduate, postgraduate and Ph.D. programme in Chemical Engineering. The main focus of the department is to give the best knowledge of the Chemical Engineering to the students and nurture their creative talent by motivating them to work on various challenging problems of Chemical Engineering like Fluidization for solid waste management, Catalyst development for process intensification, Membrane technology for enhancing shelf life of juice and other food materials, Energy from biomass, Carbon dioxide capture from flue gas, separation of valuable chemicals from different effluent streams using Reactive Extraction as separation technique and other similar areas.

The department has own students' society - Chemical Engineering Students Society (ChESS). The objective of the society is to provide a platform to students to enhance their skill and overall personality. "ChESS" has started its own book club and going to launch its e-magazine RaSAYAN, (an in-house publication of ChESS). Department encourages students to actively participate in research and present their work in scientific platforms.

The students of the department have actively participated and secured appreciable position in various extra and co-curricular activities at the university as well as national and international level.

Alumni list includes people from DRDO, IOCL, ONGC, DuPont, Reliance, ESSAR Oil, GACL, SAHARA (UAE), Jindal, BALCO, HDFC and many reputed public sector and private sector organizations. Other than that department have honour of having entrepreneurs with their own start-ups.

## Activities of the Department

- Meeting of Board of Studies of Chemical Engineering held online on July 27, 2020 to finalize the syllabus of B.Tech. third year.
- Online Talk titled "Perspective and Challenges of Higher Education in USA" by One alumnus of the Dept. Himangshu Mondal, State University of New York, Buffalo, USA, was organized by Prof. S.N. Saha.
- One day webinar on "Entrepreneurship: Challenges and Opportunities in COVID-19 Situation" organized by the Department of Chemical Engineering, School of Studies of Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur on December 05, 2020.
- Meeting of Board of Studies of Chemical Engineering held online on December 29, 2020to finalize the syllabus of B.Tech. first year.

## Achievements of the Faculty Members

- Prof. S. N. Saha, published a research paper entitled: "Ginger physicochemical properties and its consumer products processing" for the journal of Bulletin of Environment, Pharmacology and Life Sciences, June 2020.
- Dr. Sandeep Dharmadhikari, Assistant Professor, published a paper entitled: "Treatment of sugar industry effluent using electrocoagulation process: Process optimization using response surface methodology" for the Journal of the Serbian Chemical Society, June 2020.
- Dr. Sandeep Dharmadhikari, Assistant Professor delivered a lecture on "Bio-Energy: A path towards sustainable future" in a Webinar (Online talk Via Google Meet) held at School of Agriculture and Processing Science Kalasalingam Academy of Research and Education, Srivilliputhur, Tamil Nadu on June 18, 2020.
- Mr. Saurabh Meshram, Assistant Professor, published a paper entitled: "Taguchi optimization of adsorptive treatment of effluent from lead-acid battery recycling unit using pressmud - a sugar industry waste" for the Journal Pollution, 6(4): 879-892, July 2020.
- Mr. Saurabh Meshram, Assistant Professor, published a paper entitled: "Adsorption of Pb(II) form battery recycling unit effluent using granular activated carbon (GAC) and steam activated GAC", for the journal Indian Chemical Engineer, July 2020.
- Dr. Ghoshna Jyoti, Assistant Professor was coordinator of the online webinar on "Art of writing research paper" organized by research cell, School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur on November 07, 2020.
- Prof S. N. Saha, delivered online short talk on valedictory function of oneweek online seminar on "Current Trends in Engineering Project" in webinar ECE-Skill development, on November 29, 2020.
- Mr. Saurabh Meshram, Assistant Professor, delivered an online talk on "Basic human aspirations and their fulfilment" in tudent Induction Programme at School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur on December 16, 2020.
- Prof S. N. Saha, delivered lectures on (i) Brain storming session on EU collaborating project evening Session, (ii) Industrial applications of fluidization engineering and (iii) Technical session chairman, in international webinar at MGU, Kottayam held on December 18-19, 2020.
- Dr. Ghoshna Jyoti, Assistant Professor, delivered an online talk on "Art of living" in Student Induction Programme at School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur on December 24, 2020.

- Prof S. N. Saha, delivered online talk on "Comment on the proceedings of the webinar" in webinar on 360-degree feedback for AICTE approved Institutions of Madhya Pradesh & Chhattisgarh, held on January 06, 2021 and February 11, 2021.
- Mr. Neeraj Chandraker, Assistant Professor; Dr. Ghoshna Jyoti, Assistant Professor and Dr. Raghwendra Singh Thakur, Assistant Professor, published a paper entitled: "Removal of fluoride from water by electrocoagulation using mild steel electrode." in Journal of the Indian Chemical Society, 98(2), February 2021.
- Dr. Raghwendra Singh Thakur, Assistant Professor, published a paper entitled: "Wet oxidation of coking wastewater: Optimization of degradation parameters through RSM" in Journal of the Indian Chemical Society, 97, 2020.
- Dr. Sandeep Dharmadhikari, Assistant Professor; Dr. Ghoshna Jyoti, Assistant Professor, published a paper entitled: "Synthesis and characterization of cellulose acetate-based proton exchange membranes" in Journal of the Indian Chemical Society, 97, 2020.
- Mr. Saurabh Meshram, Assistant Professor; Mr. Gautam Prasad Dewangan, Assistant Professor; Mrs. Anuradha N. Joshi Assistant Professor and Dr. Raghwendra Singh Thakur, Assistant Professor, published a paper entitled: "Preparation and characterization of activated carbon from spent coffee grounds using NaOH and KCI as activating agents" in Journal of the Indian Chemical Society, 97, 2020.
- Mrs. Anuradha N. Joshi, Assistant Professor; Dr. Anil K. Chandrakar, Associate Professor; Dr. Raghwendra S. Thakur, Assistant Professor and Mr. Amit Jain Assistant Professor, published a paper entitled: "Extractive recovery of p-Coumaric acid using natural and conventional organic solvents" in Journal of the Indian Chemical Society, 97, 2020.
- Mr. Neeraj Chandraker, Assistant Professor; Dr. Ghoshna Jyoti, Assistant Professor and Dr. Raghwendra Singh Thakur, Assistant Professor, published a paper entitled: "Removal of fluoride using fly ash adsorbent" in IOP Conference Series: Earth and Environmental Science, 597, 2020.
- Mr. Saurabh Meshram, Assistant Professor; Mrs. Anuradha N. Joshi, Assistant Professor; Dr. Sandeep Dharmadhikari, Assistant Professor and Dr. Raghwendra Singh Thakur, Assistant Professor, published a paper entitled: "Adsorption of cadmium from water using activated carbon derived from Ipomoea Carnea using chemical impregnation", in IOP Conference Series: Earth and Environmental Science, 597, 2020.
- Mr. Neeraj Chandraker, Assistant Professor; Dr. Raghwendra Singh Thakur, Assistant Professor and Mr. Saurabh Meshram, Assistant Professor, published a paper entitled: "Removal of fluoride using bagasse adsorbent: Process optimization using response surface methodology" in IOP Conference Series: Earth and Environmental Science, 597, 2020.

Dr. Ghoshna Jyoti, Assistant Professor and Dr. Sandeep Dharmadhikari, Assistant Professor successfully completed and qualified 8 module course offered by NITTT for new teaching faculties as per AICTE scheme.

The faculties of Chemical Engineering department attended various Faculty Development Programme (FDP), Short term Training Programme (STTP) and webinars as follows:

Faculty Name	Title of the Event	Date	Venue
Dr. Ghoshna Jyoti	Research Methodology (Workshop)	26.05.2020 to 30.05.2020	Faculty of Education, IGNTU Amarkantak (Online mode)
Vishnu Prasad Yadav	Online National Level Faculty Development Programme on Latex	01.06.2020 to 05.06.2020	Department of Humanities & Sciences, CMR Engineering College Hyderabad in Association with Spoken Tutorial IIT Bombay (Online mode)
Prof. S. N. Saha	Leadership Talk (Webinar)	06.06.2020	MHRD Innovation Cell (Online mode)
Dr. Ghoshna Jyoti	Mathematical Modelling & Analysis Using Matlab & Simulink (Workshop)	08.06.2020 to 12.06.2020	THERMODYNEDUTECH (Online mode)
Vishnu Prasad Yadav	Faculty Development Programme on Python 3.4.3 & DJANGO	08.06.2020 to 13.06.2020	Department of Humanities & Sciences, CMR Engineering College Hyderabad in Association with Spoken Tutorial IIT Bombay (Online mode)
Dr. Ghoshna Jyoti	Computational Modelling using Ansys Fluent (Workshop)	09.06.2020	THERMODYNEDUTECH (Online mode)
Dr. Ghoshna Jyoti	Covid-19 Pandemic: Its Impact on Environment, Health and Education (Webinar)	10.06.2020	Govt. P. G. College, Datia (Online mode)

Dr. Sandeep Dharmadhikari	Faculty Development Programme on Advanced Engineering Materials for Strategic and Social Sectors- Current Perspectives	10.06.2020 to 15.06.2020	Department of Mechanical Engineering Vel Tech Hi Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai (Online mode)
Dr. Ghoshna Jyoti	Faculty Development Programme on Advanced Engineering Materials for Strategic and Social Sectors- Current Perspectives	10.06.2020 to 15.06.2020	Department of Mechanical Engineering Vel Tech Hi Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai (Online mode)
Prof. S. N. Saha	Reflection of Higher Education Scenario -Post COVID-19 (Webinar)	13.06.2020	NAAC, Bangalore (Online mode)
Dr. Ghoshna Jyoti	Additive Manufacturing for Bioimplant Manufacturing and It's Challenges (Webinar)	13.06.2020	Arasu Engineering College Kumbakonam (Online mode)
Vishnu Prasad Yadav	Applied Deep Learning (Webinar)	14.06.2020	Indian Servers (Online mode)
Dr. Ghoshna Jyoti	How to write a Quality Book, Research Paper, Synopsis, Thesis and Articles for Magazine, Newspaper (Webinar)	15.06.2020	Library Professionals Association (Online mode)
Dr. Ghoshna Jyoti	Intelligent Manufacturing (Webinar)	15.06.2020	Kings Engineering College Chennai (Online mode)
Dr. Ghoshna Jyoti	Faculty Development Programme on Process Optimization using Design of Experiments	15.06.2020 to 20.06.2020	Department of Mechanical Engineering & Chemical Engineering, R. N. G. Patel Institute of Technology, Bardoli (Online mode)

Dr. Sandeep Dharmadhikari	Faculty Development Programme on Process Optimization using Design of Experiments	15.06.2020 to 20.06.2020	Department of Mechanical Engineering & Chemical Engineering, R. N. G. Patel Institute of Technology, Bardoli (Online mode)
Dr. Ghoshna Jyoti	Atmospheric Visibility as a Tool for Air Pollution Assessment (Webinar)	17.06.2020	Department of Engineering, Arka Jain University, Jamshedpur (Online mode)
Dr. Sandeep Dharmadhikari	Atmospheric Visibility as a Tool for Air Pollution Assessment (Webinar)	17.06.2020	Department of Engineering, Arka Jain University, Jamshedpur (Online mode)
Dr. Ghoshna Jyoti	Bio-Energy: A Path towards Sustainable Future (Webinar)	18.06.2020	School of Agriculture and Processing Science Kalasalingam Academy of Research and Education, Srivilliputhur (Online mode)
Dr. Ghoshna Jyoti	NAAC Accreditation: A New Framework (Webinar)	19.06.2020	NAAC Department Mamasaheb Mohol College, Pune (Online mode)
Dr. Ghoshna Jyoti	Use of ICT in Good Governance (Webinar)	21.06.2020	Department of Mechanical Engineering, AKS University Satna (Online mode)
Dr. Ghoshna Jyoti	Awakening Path of Yoga (Live Session)	21.06.2020	Government Science College, Veraval (Online mode)
Dr. Ghoshna Jyoti	Design Thinking for Next Industrial Evaluation- Industry 4.0 (Webinar)	22.06.2020	Arasu Engineering College Kumbakonam (Online mode)
Amit Jain	Two Weeks Industrial Training on Cyber Security Measures and Tools	22.06.2020 to 03.07.2020	National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh and Digintrude InfoSec Pvt. Ltd., Hyderabad (Online mode)

Gautam Prasad Dewangan	Two Weeks Industrial Training on Cyber Security Measures and Tools	22.06.2020 to 03.07.2020	National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh and Digintrude InfoSec Pvt. Ltd., Hyderabad (Online mode)
Vishnu Prasad Yadav	Two Weeks Industrial Training on Cyber Security Measures and Tools	22.06.2020 to 03.07.2020	National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh and Digintrude InfoSec Pvt. Ltd., Hyderabad (Online mode)
Dr. Sandeep Dharmadhikari	How to Search and Analyse Effectively to Get Relevant and Latest Literature: Few Time Saving Tips (Webinar)	25.06.2020	Department of Mechanical Engineering, Jyothi Engineering College, Thrissur (Online mode)
Dr. Ghoshna Jyoti	Computational Fluid Dynamics (Online Training)	25.06.2020 to 06.07.2020	THERMODYNEDUTECH (Online mode)
Dr. Sandeep Dharmadhikari	Future Technology Trends (Webinar)	28.06.2020	Department of Electronics & Communication Engineering St. Joseph's Institute of Technology, Chennai (Online mode)
Dr. Sandeep Dharmadhikari	Impact of Lockdown due to COVID-19 on Forest and Environment in India (Webinar)	29.06.2020	Govt. Kaktiya PG College Jagdalpur (Online mode)
Dr. Raghwendra Singh Thakur	Accreditation of Engineering Programs	29-06-2020 to 03-07-2020	NITTTR Chandigarh (Online mode)
Dr. Sandeep Dharmadhikari	Distributed Energy Recourses and Its Impact (Webinar)	30.06.2020	Department of Electronics & Communication Engineering St. Joseph's Institute of Technology, Chennai (Online mode)

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Neeraj Chandraker	Smart Sustainable Buildings and New Material Technology (Webinar)	04.07.2020	Agra Sub-chapter of ISHRAE in association with Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Amit Jain	Smart Sustainable Buildings and New Material Technology" (Webinar)	04.07.2020	Agra Sub-chapter of ISHRAE in association with Guru Ghasidas Vishwavidyalaya, Bilaspur
Vishnu Prasad Yadav	Smart Sustainable Buildings and New Material Technology (Webinar)	04.07.2020	(Online mode) Agra Sub-chapter of ISHRAE in association with Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Amit Jain	Health Care and Social Activities During Covid- 19 Pandemic Situation: Role of NSS Volunteers (Webinar)	05.07.2020	NSS Unit and IQAC Prabhat Kumar College, Contai, Purba Medinipur (Online mode)
Amit Jain	One week Faculty Development Programme on Challenges and Opportunities in Recent Emerging Technologies	06.07.2020 to 10.07.2020	Department of Chemical Engineering, Shri Guru Gobind Singhji Institute of Engineering & Technology, Nanded (Online mode)
Gautam Prasad Dewangan	One week Faculty Development Programme on Challenges and Opportunities in Recent Emerging Technologies	06.07.2020 to 10.07.2020	Department of Chemical Engineering, Shri Guru Gobind Singhji Institute of Engineering & Technology, Nanded (Online mode)
Dr. Raghwendra Singh Thakur	One week Faculty Development Programme on Challenges and Opportunities in Recent Emerging Technologies	06.07.2020 to 10.07.2020	Department of Chemical Engineering, Shri Guru Gobind Singhji Institute of Engineering & Technology, Nanded (Online mode)
Vishnu Prasad Yadav	One week Faculty Development Programme on Challenges and Opportunities in Recent Emerging Technologies	06.07.2020 to 10.07.2020	Department of Chemical Engineering, Shri Guru Gobind Singhji Institute of Engineering & Technology, Nanded (Online mode)

Dr. Sandeep Dharmadhikari	One week Faculty Development Programme on Challenges and Opportunities in Recent Emerging Technologies	06.07.2020 to 10.07.2020	Department of Chemical Engineering, Shri Guru Gobind Singhji Institute of Engineering & Technology, Nanded (Online mode)
Dr. Ghoshna Jyoti	One week Faculty Development Programme on Challenges and Opportunities in Recent Emerging Technologies	06.07.2020 to 10.07.2020	Department of Chemical Engineering, Shri Guru Gobind Singhji Institute of Engineering & Technology, Nanded (Online mode)
Amit Jain	Relevance of Yoga during the Covid-19 Pandemic (Webinar)	08.07.2020	Department of Philosophy, Prabhat Kumar College, Contai, Purba Medinipur (Online mode)
Anuradha N Joshi	Two weeks Industrial Training Programme/ Refresher Course on Internet of Things (A project-based Learning through Virtual IOT lab)	08.07.2020 to 19.07.2020	NITTTR Chandigarh (Online mode)
Dr. Raghwendra Singh Thakur	Two weeks Industrial Training Programme/ Refresher Course on Internet of Things (A project-based Learning through Virtual IOT lab)	08.07.2020 to 19.07.2020	NITTTR Chandigarh (Online mode)
Neeraj Chandraker	Two weeks Industrial Training Programme/ Refresher Course on Internet of Things (A project-based Learning through Virtual IOT lab)	08.07.2020 to 19.07.2020	NITTTR Chandigarh (Online mode)
Prof. S. N. Saha	Chemical Engineering Education: Past, Present and Future Paradigms (Webinar)	09.07.2020	Department of Chemical Engineering, Manipal University, Jaipur (Online mode)

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Prof. S. N. Saha	Employability Post COVID Era: Expectation of Industry Vs. Education Systems Preparedness (Webinar)	11.07.2020	ISHRAE Pune in association with AICTE and ASSOCHA (Online mode)
Amit Jain	One week Faculty Development Programme on Sustainable Environment- An Engineering Perspective (SEEP: 2020)	13.07.2020 to 18.07.2020	Department of Civil Engineering, Assam Engineering College, Guwahati (Online Mode)
Saurabh Meshram	One week Faculty Development Programme on Sustainable Environment- An Engineering Perspective (SEEP: 2020)	13.07.2020 to 18.07.2020	Department of Civil Engineering, Assam Engineering College, Guwahati (Online Mode)
Dr. Sandeep Dharmadhikari	One week Faculty Development Programme on Sustainable Environment- An Engineering Perspective (SEEP: 2020)	13.07.2020 to 18.07.2020	Department of Civil Engineering, Assam Engineering College, Guwahati (Online Mode)
Dr. Anil Kumar Chandrakar	One week Faculty Development Programme on Sustainable Environment- An Engineering Perspective (SEEP: 2020)	13.07.2020 to 18.07.2020	Department of Civil Engineering, Assam Engineering College, Guwahati (Online Mode)
Dr. Ghoshna Jyoti	One week Faculty Development Programme on Sustainable Environment- An Engineering Perspective (SEEP: 2020)	13.07.2020 to 18.07.2020	Department of Civil Engineering, Assam Engineering College, Guwahati (Online Mode)

Amit Jain	Two weeks Faculty Development Programme on Advanced Optimization Techniques and Hands- on with MATLAB/SCILAB	13.07.2020 to 24.07.2020	E&ICT Academy MNIT Jaipur, NIT Patna and PDPM IIITDM Jabalpur (Online Mode)
Gautam Prasad Dewangan	Two weeks Faculty Development Programme on Advanced Optimization Techniques and Hands- on with MATLAB/SCILAB	13.07.2020 to 24.07.2020	E&ICT Academy MNIT Jaipur, NIT Patna and PDPM IIITDM Jabalpur (Online Mode)
Vishnu Prasad Yadav	Two weeks Faculty Development Programme on Advanced Optimization Techniques and Hands- on with MATLAB/SCILAB	13.07.2020 to 24.07.2020	E&ICT Academy MNIT Jaipur, NIT Patna and PDPM IIITDM Jabalpur (Online Mode)
Dr. Sandeep Dharmadhikari	Virtual Reality (Webinar)	14.07.2020	Department of Electronics & Communication Engineering, St. Joseph's Institute of Technology, Chennai (Online mode)
Dr. Sandeep Dharmadhikari	Artificial Intelligence (Webinar)	18.07.2020	Department of Electronics & Communication Engineering, St. Joseph's Institute of Technology, Chennai (Online mode)
Dr. Sandeep Dharmadhikari	Faculty Development Programme on Blockchain and its Application	20.07.2020 to 24.07.2020	Department of Computer Science & Engineering, Govind Ballabh Pant Institute of Engineering & Technology, Pauri (Online mode)

Dr. Ghoshna Jyoti	Faculty Development Programme on Blockchain and its Application	20.07.2020 to 24.07.2020	Department of Computer Science & Engineering, Govind Ballabh Pant Institute of Engineering & Technology, Pauri (Online mode)
Dr. Ghoshna Jyoti	Applications of Fluid Mechanics in Engineering and Technology (Webinar)	27.07.2020	Department of Mathematics – CBIT, Hyderabad (Online mode)
Amit Jain	One-week Short Term Training Programme on Nanotechnology and Functional Materials	27.07.2020 to 01.08.2020	Department of Mechanical Engineering, Sri Venkateswara College of Engineering, Tirupati (Online Mode)
Anuradha N. Joshi	One-week Short Term Training Programme on Nanotechnology and Functional Materials	27.07.2020 to 01.08.2020	Department of Mechanical Engineering, Sri Venkateswara College of Engineering, Tirupati (Online Mode)
Vishnu Prasad Yadav	One-week Short Term Training Programme on Nanotechnology and Functional Materials	27.07.2020 to 01.08.2020	Department of Mechanical Engineering, Sri Venkateswara College of Engineering, Tirupati (Online Mode)
Dr. Anil Kumar Chandrakar	Deep Eutectic Solvents for Environmental Remediation and Energy Storage (International Workshop)	29.07.2020 to 30.07.2020	Department of Chemical Engineering, IIT Guwahati (Online mode)
Dr. Sandeep Dharmadhikari	Deep Eutectic Solvents for Environmental Remediation and Energy Storage (International Workshop)	29.07.2020 to 30.07.2020	Department of Chemical Engineering, IIT Guwahati (Online mode)

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Amit Jain	Faculty Development Programme on Recycling of Construction Demolition Waste	05.08.2020 to 07.08.2020	SRM Institute of Science & Technology, Chennai (Online mode)
Saurabh Meshram	Faculty Development Programme on Universal Human Values in Technical Education	05.08.2020 to 09.08.2020	AICTE, New Delhi (Online mode)
Dr. Sandeep Dharmadhikari	Faculty Development Programme on Universal Human Values in Technical Education	05.08.2020 to 09.08.2020	AICTE, New Delhi (Online mode)
Dr. Ghoshna Jyoti	Faculty Development Programme on Universal Human Values in Technical Education	05.08.2020 to 09.08.2020	AICTE, New Delhi (Online mode)
Prof. S. N. Saha	Conclave on Transformational Reforms in Higher Education under National Education Policy (MHRD)	07.08.2020	MHRD (Online mode)
Amit Jain	Application of Latest Software in Project Management and Cost Estimation (Webinar)	07.08.2020 to 08.08.2020	Hindusthan College of Engineering and Technology, Coimbatore (Online mode)
Dr. Anil Kumar Chandrakar	Online Faculty Development Programme on Disaster Management Mitigation and Responses 2020	10.08.2020 to 14.08.2020	Department of Civil Engineering, Assam Engineering College, Guwahati (Online mode)
Dr. Ghoshna Jyoti	Online Faculty Development Programme on Disaster Management Mitigation and Responses 2020	10.08.2020 to 14.08.2020	Department of Civil Engineering, Assam Engineering College, Guwahati (Online mode)

Dr. Sandeep Dharmadhikari	Faculty Development Programme on Blended Learning and Flipped Classroom	10.08.2020 to 14.08.2020	(ATAL) SVNIT, Surat (Online mode)
Amit Jain	Two-weeks Online Faculty Development Programme on ICT Tools for Teaching, Learning Process and Institute	10.08.2020 to 21.08.2020	E&ICT Academies NIT Patna, MNIT Jaipur, PDPM IIITDM Jabalpur, IIT Guwahati and IIT Roorkee (Online mode)
Vishnu Prasad Yadav	Two-weeks Online Faculty Development Programme on ICT Tools for Teaching, Learning Process and Institute	10.08.2020 to 21.08.2020	E&ICT Academies NIT Patna, MNIT Jaipur, PDPM IIITDM Jabalpur, IIT Guwahati and IIT Roorkee (Online mode)
Amit Jain	National Education Policy (NEP) – 2020 (Webinar)	12.08.2020	Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur (Online mode)
Prof. S. N. Saha	Emerging Areas in Chemical Sciences: Opportunities and Challenges (Webinar)	12.08.2020 to 13.08.2020	Chemical Research Society of India (Online mode)
Dr. Sandeep Dharmadhikari	Covid-19 Minds Eye (Webinar)	15.08.2020 to 17.08.2020	Department of Electronics & Communication Engineering St. Joseph's Institute of Technology, Chennai (Online mode)
Dr. Sandeep Dharmadhikari	International Virtual Conference On Advances in Colloidal and Polymeric Systems (ACAPS-2020)	22.08.2020	VIT, Vellore (Online mode)

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Amit Jain	Advancement in Materials Science in Present Scenario (AMSPS-2020) (Webinar)	23.08.2020	Govt. J. M. P. College Takhatpur, Bilaspur (Online mode)
Amit Jain	Short Term Training Programme On Food Processing, Preservation & Cold Storage	24.08.2020 to 29.08.2020	IIT Kharagpur (Online mode)
Anuradha N. Joshi	Short Term Training Programme On "Food Processing, Preservation & Cold Storage"	24.08.2020 to 29.08.2020	IIT Kharagpur (Online mode)
Dr. Raghwendra Singh Thakur	Short Term Training Programme On "Food Processing, Preservation & Cold Storage"	24.08.2020 to 29.08.2020	IIT Kharagpur (Online mode)
Prof. S. N. Saha	Energy Performance Contracting: India's Economy Booster Post COVID 19 (Webinar)	28.08.2020	ASSOCHAM INDIA (Online mode)
Dr. Anil Kumar Chandrakar	Short Term Training Programme on Techno-Economic Solution for Sustainable Municipal Solid Waste Management for Development of Smart Cities in India	01.09.2020 to 05.09.2020	Department of Chemical Engineering, IPS Academy, Institute of Engineering & Science, Indore (Online mode)
Dr. Raghwendra Singh Thakur	Short Term Training Programme on Techno-Economic Solution for Sustainable Municipal Solid Waste Management for Development of Smart Cities in India	01.09.2020 to 05.09.2020	Department of Chemical Engineering, IPS Academy, Institute of Engineering & Science, Indore (Online mode)

Amit Jain	Short Term Training Programme on Techno-Economic Solution for Sustainable Municipal Solid Waste Management for Development of Smart Cities in India	01.09.2020 to 05.09.2020	Department of Chemical Engineering, IPS Academy, Institute of Engineering & Science, Indore (Online mode)
Saurabh Meshram	Short Term Training Programme on Techno-Economic Solution for Sustainable Municipal Solid Waste Management for Development of Smart Cities in India	01.09.2020 to 05.09.2020	Department of Chemical Engineering, IPS Academy, Institute of Engineering & Science, Indore (Online mode)
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Dr. Sandeep Dharmadhikari	Short Term Training Programme on Techno-Economic Solution for Sustainable Municipal Solid Waste Management for Development of Smart Cities in India	01.09.2020 to 05.09.2020	Department of Chemical Engineering, IPS Academy, Institute of Engineering & Science, Indore (Online mode)

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Vishnu Prasad Yadav	Faculty Development Programme on Alternate Fuels	07.09.2020 to 11.09.2020	Christian College of Engineering & Technology (Online mode)
Amit Jain	Surface Engineering of Polymer Membrane (Webinar)	09.09.2020	Centre of Chemistry & Chemical Excellence New Delhi (Online mode)
Dr. Sandeep Dharmadhikari	Surface Engineering of Polymer Membrane (Webinar)	09.09.2020	Centre of Chemistry & Chemical Excellence New Delhi (Online mode)
Vishnu Prasad Yadav	One-week Short Term Training Programme on Nanotechnology and Functional Materials (NTFM-Phase-III)	14.09.2020 to 19.09.2020	Department of Mechanical Engineering, S V College of Engineering, Tirupati (Online mode)
Dr. Sandeep Dharmadhikari	Learning Management System (LMS)	21.09.2020 to 25.09.2020	National Institute of Technical Teachers Training and Research (NITTTR) Chennai (Online mode)
Dr. Ghoshna Jyoti	Short Term Training Programme on Sustainable Design of Chemical Process Plants by Using ASPEN PLUS and ASPEN HYSYS Simulating Tools	21.09.2020 to 26.09.2020	Vellore Institute of Technology (VIT), Vellore (Online mode)
Dr. Ghoshna Jyoti	Waste to Wealth (Webinar)	30.09.2020	Department of Civil Engineering, KCT Coimbatore (Online mode)

Dr. Ghoshna Jyoti	Short Term Training Programme on Industrial Pollution & Control Strategies	05.10.2020 to 10.10.2020	Department of Chemical Engineering, Anurag Group of Institutions, Ghatkesar, Medchal (Online mode)
Dr. Sandeep Dharmadhikari	Crash Course on Climate Change & Its Consequences (Webinar)	10.10.2020	NIT, Rourkela (Online mode)
Amit Jain	Art of Writing Research Paper (Webinar)	07.11.2020	School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Ghoshna Jyoti	Art of Writing Research Paper (Webinar)	07.11.2020	School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Sandeep Dharmadhikari	Art of Writing Research Paper (Webinar)	07.11.2020	School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Ghoshna Jyoti	Short Term Training Programme on Computational Fluid Flow and Heat Transfer phase III	09.11.2020 to 14.11.2020	Department of Chemical Engineering, Gayatri Vidya Parishad College of Engineering, Visakhapatnam (Online mode)
Dr. Ghoshna Jyoti	Short Term Training Programme on Embedding Soft Skills in Technical Education-its Impact and Effectiveness on Employability	16.11.2020 to 21.11.2020	GRG Polytechnic College (Online mode)

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Prof. S. N. Saha	Online Education Quality Assurance in India and Australia (Webinar)	19.11.2020 to 20.11.2020	AICTE and Australia (Online)
Amit Jain	Excellence in Peer Review: How to be an Effective Peer Reviewer (Webinar)	23.11.2020	Taylor & Francis Reviewer Training Network (Online mode)
Amit Jain	Recent Advances in Chemical and Environmental Sciences and Technology (Webinar)	23.11.2020 to 24.11.2020	Department of Chemistry, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Ghoshna Jyoti	Recent Advances in Chemical and Environmental Sciences and Technology (Webinar)	23.11.2020 to 24.11.2020	Department of Chemistry, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Amit Jain	Intellectual Property Rights (Workshop)	28.11.2020	School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Anuradha N. Joshi	Intellectual Property Rights (Workshop)	28.11.2020	School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Ghoshna Jyoti	Intellectual Property Rights (Workshop)	28.11.2020	School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)

Dr. Sandeep Dharmadhikari	Intellectual Property Rights (Workshop)	28.11.2020	School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Prof. S. N. Saha	Entrepreneurship Challenges and Opportunities in COVID- 19 Situation (Webinar)	05.12.2020	Department of Chemical Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Prof. S. N. Saha	Advances in Biofuel (Webinar)	05.12.2020	Department of Mechanical Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Amit Jain	Advances in Biofuel (Webinar)	05.12.2020	Department of Mechanical Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Ghoshna Jyoti	Advances in Biofuel (Webinar)	05.12.2020	Department of Mechanical Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Sandeep Dharmadhikari	Advances in Biofuel (Webinar)	05.12.2020	Department of Mechanical Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Amit Jain	Online International Symposium on Modern Breakthroughs in Chemical and Biological Research	07.12.2020	Department of Chemistry and Zoology, Kalinga University, Raipur (Online mode)
Amit Jain	Reliability & Survival Analysis (Webinar)	10.12.2020	Department of Chemistry and Zoology, Kalinga University, Raipur (Online mode)

Dr. Sandeep Dharmadhikari	CAE in Automotive (Webinar)	12.12.2020	Department of Mechanical Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Amit Jain	Nuclear Power Plants (Webinar)	22.12.2020	Department of Mechanical Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Ghoshna Jyoti	Nuclear Power Plants (Webinar)	22.12.2020	Department of Mechanical Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur (Online mode)
Dr. Ghoshna Jyoti	Online Faculty Development Programme on Waste Technology	04.01.2021 to 08.01.2021	ATAL NIT Warangal (Online mode)
Amit Jain	Certificate Programme on Business Analytics in Python using STATCRAFT-P	08.01.2021	Jaipuria Institute of Management, Ghaziabad (Online mode)
Dr. Ghoshna Jyoti	Online Faculty Development Programme on Green Technology & Sustainability Engineering	18.01.2021 to 22.01.2021	ATAL Coimbatore Institute of Technology (Online mode)
Prof. S. N. Saha	Universal Human Value- Student Induction Programme (Webinar of AICTE with University Coordinators)	21.01.2021	AICTE (Online mode)
Dr. Ghoshna Jyoti	Refresher Course on Theoretical and Computational Chemistry	27.01.2021 to 11.02.2021	Indian Academy of Sciences, Bangalore (Online mode)

Prof. S. N. Saha	Universal Human Value- Student Induction Programme (Webinar of AICTE with University Coordinators)	11.02.2021	AICTE (Online mode)
Amit Jain	Data Analysis in R using STATCRAFT (Webinar)	12.02.2021	Online mode
Dr. Sandeep Dharmadhikari	Nanotechnologies for Environmental Remediation: Applications, Limits, and Side Effects (Webinar)	13.03.2021	RASĀYAN Journal of Chemistry (Online mode)
Prof. S. N. Saha	Future of Chemical Engineering-2021 (Workshop)	19.03.2021 to 21.03.2021	ChE-IIT(ISM) Dhanbad (Online mode)
Amit Jain	Future of Chemical Engineering-2021 (Workshop)	19.03.2021 to 21.03.2021	ChE-IIT(ISM) Dhanbad (Online mode)
Dr. Sandeep Dharmadhikari	Future of Chemical Engineering-2021 (Workshop)	19.03.2021 to 21.03.2021	ChE-IIT(ISM) Dhanbad (Online mode)

## Achievements of the Students

- Ketan Singh Rathore (V Sem participated in Desi Rang on August 10, 2020, organised by Nrutyadham Kala Samiti (National Level Online Dance Competition) in the Field of Semiclassical Dance and bagged 3<sup>rd</sup> Position.
- Ketan Singh Rathore (V Sem) participated and got the 2<sup>nd</sup> Position in the ANASS INDIA all India social distancing online dance contest 2020 season -4.
- Jatin Patel (B.Tech. V Sem) worked as Event management leader at Developer Student Club GGV
- Yamjala Rakesh (B.Tech. V Sem) contributed as MyNEP Ambassador towards promoting the National Education Policy 2020 and also participated in MyNEP quiz competition
- All B.Tech. Chemical III, V and VII semester students has participated in Online Talk titled "Perspective & challenges of higher education in USA" by

Ex-student Himangshu Mondal, State University of New York, Buffalo, USA, organized by Prof. S. N. Saha.

The details of the students of the department attended and participated in various Seminars, Conference, Workshop, Online Training and other programmes are as follows:

S. No	Name of the Student / Class	Title of the Event	Date	Venue
1	Chhavi Verma (IV Sem)	DWSIM Chemical Process Simulator	May 2020 to June 2020	Online Training
2	Thammina Kiran (IV Sem)	Five Days Extensive Training on MATLAB and Simulink	08.06.2020 to 12.06.2020	Online Training
3	A. Umesh (VI Sem)	Experiences in Solar Energy: Challenges and Opportunities	08.06.2020 to 13.06.2020	Online Training
4	Gaurav Kumar (IV Sem)	Internshala Hamari Pahchan NGO (Volunteer)	10.06.2020	Online mode
5	Thammina Kiran (IV Sem)	Ten Days Extensive Training on CFD	25.06.2020 to 06.07.2020	Online Training
6	Gaurav Kumar (IV Sem)	<u>A</u> WS Training & Certification Getting Started With AWS Security and Compliance	27.06.2020	Online mode
7	Shreerang Mishra (III Sem)	Advanced Excel by Internshala	01.07.2020 to 31.07.2020	Online Training
8	Sharanya Shailendra Paliwal (VI Sem)	Achieving Sustainability in Managing Plastic Wastes (Webinar)	03.07.2020	Online mode
9	Pradyumn kumar Upadhyay (V Sem)	9-week online course on Introduction to Programming with MATLAB	14.07.2020 to 14.09.2020	Coursera (Online mode)

10	Thammina Kiran (V Sem)	Finite Element Analysis Using Ansys	29.07.2020 to 31.08.2020	Online mode
11	Yamjala Rakesh (V Sem)	Awareness programme of COVID -19	02.08.2020	All India Institute of public & Physical Health Sciences (Online mode)
12	Pradyumn kumar Upadhyay (V Sem)	2-Week Online Course on Oil & Gas Industry Operations and Markets	13.08.2020 to 27.08.2020	Coursera (Online mode)
13	Yamjala Rakesh (V Sem)	Learn to Design Your Own Solar Home System	14.08.2020	Energy Literacy (Online mode)
14	Thammina Kiran (V Sem)	3 Days Intensive Training on Solid Works	17.08.2020 to 19.08.2020	Online mode
15	Thammina Kiran (V Sem)	Online Summer Internship Programme (OSIP 2020) Chemical Process Technology	20.08.2020 to 10.10.2020	IIChE Jadavpur University Campus, Kolkata (Online mode)
16	Rani Besra (V Sem)	Online Summer Internship Programme (OSIP 2020) Chemical Process Technology	20.08.2020 to 10.10.2020	IIChE, Jadavpur University Campus, Kolkata (Online mode)
17	Gaurav Kumar (V Sem)	Online Summer Internship Programme (OSIP 2020) Chemical Process Technology	20.08.2020 to 10.10.2020	IIChE, Jadavpur University Campus, Kolkata (Online mode)
18	Yamjala Rakesh (V Sem)	Online Summer Internship Programme (OSIP 2020) Chemical Process Technology	20.08.2020 to 10.10.2020	IIChE, Jadavpur University Campus, Kolkata (Online mode)

19	Chhavi Verma (V Sem)	Profile Building Event	22.08.2020 to 23.08.2020	Girlscript Chapter Bilaspur (Online mode)
20	Yamjala Rakesh (V Sem)	Basic Nutrition (Poshan Abhiyaan)	25.08.2020	ICMR-National Institute of Nutrition (Online mode)
21	Sharanya Shailendra Paliwal (VII Sem)	IT not only Enabler, but Critical Element of Engineering and Business Operation (Webinar)	05.09.2020	NIT Jalandhar (Online mode)
22	Jatin Patel (V Sem)	One-Week Online STC on Energy and Its Applications	08.09.2020 to 12.09.2020	Online mode
23	Sharanya Shailendra Paliwal (VII Sem)	Process Scale Up - Aspects and Importance (Webinar)	12.09.2020	NIT Jalandhar (Online mode)
24	Sharanya Shailendra Paliwal (VII Sem)	Hydro Processing Technologies in Petroleum Refinery (Webinar)	19.09.2020	NIT Jalandhar (Online mode)
25	Lucky Pandey (III Sem)	Programming with Python	29.09.2020	Intrenshala (Online mode)
26	Nagendra Singh Sidar (VII Sem)	Short Term Course on Current Industrial Practices in Chemical Engineering	07.10.2020 to 11.10.2020	NIT Jalandhar (Online mode)
27	Gaurav Kumar (V Sem)	Quiz on Knowledge Testing On NCC	26.10.2020	Thakur College NCC Unit (Online mode)
28	Jatin Patel (V Sem)	Industry Perspective on Process Control and Career Opportunities in this Field (Webinar)	05.11.2020	NIT Jalandhar (Online mode)

29	Jessica M. Xalxo (VII Sem)	Recent Advances in Chemical and Environmental Sciences and Technology (Webinar)	23.11.2020 to 24.11.2020	Online mode
30	Jessica M. Xalxo (VII Sem)	Intellectual Property Rights (Workshop)	28.11.2020	Online mode
31	Chhavi Verma (V Sem)	Intellectual Property Rights (Workshop)	28.11.2020	Online mode
32	Yamjala Rakesh (V Sem)	Intellectual Property Rights (Workshop)	28.11.2020	Online mode
33	Chhavi Verma (V Sem)	Short Term Course on Advanced Research Trends in Chemical Engineering (ARTCE – 2020)	28.10.2020 to 01.12.2020	Online mode
34	Chhavi Verma (V Sem)	Intellectual Property Rights (Workshop)	28.11.2020 to 29.11.2020	Online mode
35	Jatin Patel (V Sem)	30 Days of Google Cloud	30.11.2020	Online mode
36	Yamjala Rakesh (V Sem)	Quiz Competition on AIDS Awareness	01.12.2020	Online mode
37	Jessica M. Xalxo (VII Sem)	Advances in Biofuel	05.12.2020	Online mode
38	Jessica M. Xalxo (VII Sem)	Online International Symposium on Modern Breakthroughs in Chemical and Biological Research	07.12.2020	Online mode

39	Jessica M. Xalxo (VII Sem)	Reliability & Survival Analysis (Webinar)	10.12.2020	Online mode
40	CVS Chari (V Sem)	Nuclear Power Plants (Webinar)	22.12.2020	NIT Jalandhar (Online mode)
41	Chhavi Verma (V Sem)	Getting Digital (Webinar)	26.12.2020 to 27.12.2020	Online mode
42	Pranjal Nirmalkar (V Sem)	Six Sigma Training		Master of Project Academy (Online mode)

The details of the students of the department attended Industrial Training / In-plant Training / Industrial visit / Internships are as follows:

	Name of the Student / Class	Industrial Training / In- plant Training / Industrial visit / Internship	Period		Name and
S. No.			From	То	address of the industry
1	Jatin Patel (IV Sem)	Internship - IIChE (Petrochemical Engineering)	May 2020	June 2020	IICHE Jadavpur University Campus, Kolkata
2	Deepak Sen (IV Sem)	Internship - IIChE (Chemical Process Technology)	15.06.2020	30.07.2020	IICHE Jadavpur University Campus, Kolkata
3	Govind Kosre (IV Sem)	Bhilai Steel Plant	22.06.2020	04.07.2020	Bhilai Steel Plant (SAIL) Bhilai
4	Chhavi Verma (IV Sem)	Internship - IIChE (Refinery and Petrochemical Engineering)	June 2020	July 2020	IICHE Jadavpur University Campus, Kolkata