# **JUET Chronicle**



# Jaypee University of Engineering & Technology, Guna

# Vol. 10, No.1

## July-December, 2019



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### **Editorial Board**

- Prof. Shishir Kumar -Chairman
- Dr. Rashmi Tyagi
- Dr. Yashwant Modi
- Dr. Kamini Bhasin
- Mr. Shishir Thakur



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### INTERACTION BY HONOURABLE VICE CHANCELLOR

 Honourable Vice Chancellor Prof. J. S. P. Rai interacted with all faculty members of the university and emphasised on Expert Lectures, Preparation for 2<sup>nd</sup> Cycle of NAAC Accreditation, Learning outcome based curriculum framework, Mentorship and Emerging courses on September 12, 2019.

### DAYS OF NATIONAL IMPORTANCE CELEBRATION

- 70th Constitution Day was celebrated on November 26, 2019. All faculty, staff members and students participated and read Preamble and Duties of Citizens.
- All faculty, staff members and students took Integrity Pledge on November 02, 2019 during Vigilance Awareness Week 2019.
- 150th Birth Anniversary of Father of Nation Shri Mahatma Gandhi Ji was celebrated on October 02, 2019. All faculty, staff members and students participated and read a selected passage on Gandhian philosophy.

### IMPORTANT ACADEMIC EVENTS

- Academic Council Meeting was held on December 09, 2019.
- Dr. A. Shekhar, IIT Delhi delivered a lecture on 'Communicating Science and Technology through the electronic media' on December 06, 2019.
- Mr. Anand Bhushan, Vice President, Capegemini interacted with students and faculty members on November 09, 2019.
- Seminar on Learning Outcome based Curriculum Framework (LOCF) was delivered by Prof. Shishir Kumar, Dr. Prateek Pandey and Dr. Dinesh Verma on 03 Oct 2019. All the faculty members of JUET attended this event.
- Mr. Akshat Gupta, alumnus of CE, 2005-09 batch currently associated with Delhi Metro Corporation Ltd. visited the campus and interacted with third and final year students on September 02, 2019.
- A session on 'Status of Gender Equality in India' was conducted on December 17, 2019.

### **OUTREACH ACTIVITIES**

- As part of University's outreach to schools in and around JUET, around 2500 students visited the campus and were taken around the various facilities of the university.
- The Department of Mechanical Engineering hosted zonal rounds of 12th A World in Motion (AWIM) National Olympics- 2019, Organized jointly by Mahindra & Mahindra and SAE India. A World in Motion (AWIM) is a teacher administered, volunteers assisted program wherein students make air powered Jet Toy Cars. Students experiment with chassis designs and nozzle sizes to obtain best performance of the Jet Toy Car.
- AWIM Guna-zone round was organised at JUET Guna campus on November 27, 2019. 18 schools with a team of 4 students of AWIM class 6th participated in the event. Delhi Public School, NFL, Guna was declared overall winner.
- AWIM Kota-zone round was organised at Lawrence and Mayo Public School, Kota on November 28, 2019. 17 schools participated in the event. Vidyashram Public School, Kota was declared overall winner.
- Faculty members visited more than 100 schools in MP and Rajasthan as part of outreach activities and held a session for career counselling.

### ALUMNI ACHIEVEMENTS

- Mr. Sitanshu Tripathi, alumnus of B.Tech, ECE, batch 2015-19 joined as Business Development Associate at BYJU'S, Pune.
- Mr. Yash Surana, alumnus of B.Tech, ECE, batch 2015-19 joined as Assistant System Engineer-Trainee at TCS, Pune.
- Mr. Apurv Vats, alumnus of B.Tech, ECE, 2013-17 has been awarded for improving the Head Count from 35 to 75 in a single Quarter (Q3), which was way beyond the expectation of Delivery Managers in Adobe, Bengaluru.
- Ms. Anshika Vashistha, alumnus of B.Tech, ECE, batch 2013-17 joined as Engineer at British Telecom Global Services India Limited, Gurgaon.
- Mr. Himanshu Jain, alumnus of CE, batch 2013-17, has been selected by CSIR-CBRI, Roorkee as one among the 21 students from all over the country, for pursuing his dissertation work in the field of highwav materials.

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Career Counselling Session conducted by faculty members was in various schools as a part of outreach activities.



 Mr. Roopal Anand, alumnus of B.Tech, ECE, batch 2012-16 joined as Senior Software Engineer at Infosys, Pune.

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- Mr. Sushant Jain, alumnus of B.Tech, ECE, 2012-16 has been awarded for winning the Best Automation Project in Infosys, Pune.
- Mr. Parth Kuraria, alumnus of B.Tech, ECE, batch 2012-16 has joined as Assistant Commandant in Ministry of Home Affairs, Government of India, Delhi.
- Mr. Sushant Jain, alumnus of B.Tech, ECE, batch 2012-16 has been promoted to Technology Analyst at Infosys, Pune.
- Mr. Saurabh Khanna, alumnus of B Tech CE, batch 2011-15, qualified the Andaman Public Works Department Assistant Engineer Examination.
- Mr. Mayank Singh, alumnus of B.Tech, ECE, batch 2011-15 started a new position as Team Lead at 1mg, Gurgaon.
- Mr. Akshansh Kumar Sharma, alumnus of B.Tech, ECE, batch 2011-15 started a new position as Software Developer at Technicolor, Bengaluru.
- Mr. Samyak Tomar, alumnus of B.Tech, ECE, batch 2011-15 started a new position as Executive at KPMG Global Services, Bengaluru.
- Mr. Mukul Gupta, alumnus of B.Tech, ECE, 2010-14 presently working in Service Now as Senior Technical Support Engineer (San Francisco) was awarded Technical Support Spot Award. This award is given for his "Exceptional service and willingness to go above and beyond". He started a new position as Cloud Technical Solution Engineer at Google, San Francisco.
- Mr. Abhishek Pandit, alumnus of B.Tech, ECE, batch 2010-14 joined as Senior Software Engineer at Quick Heal, Pune.
- Mr. Shrey Bhatnagar, alumnus of B.Tech, ECE, batch 2009-13 joined as Business Analyst at Thought Works, Gurgaon.
- Mr. Eshwar Srinivasan, alumnus of B.Tech, ECE, 2008-12 awarded People Choice Award at Barclays Got Talent, Season-3. Currently Mr. Eshwar is working with Barclay as a Senior Automation Engineer, Pune.
- Ms. Deepa Singh, alumna of B.Tech, ECE, batch 2008-12 started a new position as Test Team Lead, Accenture, Pune.
- Mr. Vineet Prakash, alumnus of B.Tech, ECE, batch 2008-12 started a new position as Senior Consultant at Capgemini, Navi Mumbai.
- Mr. Siddharth Jain, alumnus of B.Tech, ECE, batch 2008-12 started a new position as Senior Software Engineer at OCC, Chicago.
- Mr. Anuj Tiwari, alumnus of ECE, batch 2007-11 published his fifth book titled "Give Your Heart a Break". Mr. AnujTiwari is known for his bestselling books, "Journey of Two Hearts" and "It Had to Be You". He is the recipient of the Newspapers Association of India Achiever Awards 2014, which named him as the "Best Upcoming Novelist".
- Mr. Abhishek Kaushik, alumnus of B.Tech, ECE, batch 2006-10 started a new position as Web Engineer at Human Made, Benagluru.
- Mr. Abhyuday Choudhary, alumnus of B.Tech, ECE, batch 2006-10 is promoted to Associate Solution Architect at Dell EMC, Malaysia.

### **ACHIEVEMENTS (FACULTY WISE)**

#### FACULTY OF ENGINEERING

### **CHEMICAL ENGINEERING**

### **A: Publication in Journals**

 K. N. Gupta, "Modeling, Simulation, and Experimental Validation for Toluene removal from Gas phase in a fixed bed adsorption column", Indian Chemical Engineer, DOI: https://doi.org/10.1080/00194506.2019.1650668, August 2019.

### B: Conference/Seminar/Workshop Participated

- Dr. K. N. Gupta, Dr. Rahul Shrivastava, and Dr. Sushmita Sharma attended five-day faculty development program on Deep Learning organized by JUET Guna during December 09 – 13, 2019.
- Dr. K. N. Gupta and Dr. Rahul Shrivastava attended three day AICTE Faculty Induction Program on "Universal Human Values for Student Induction" organized at Jaypee University of Engineering and Technology, Guna during September16-18, 2019.

#### **C: Student's Activities**

 Chemical Engineering Forum (CHEF) along with Civil Engineering Forum Students Society organized an awareness seminar on wastage of food and water on November 20, 2019.

### CIVIL ENGINEERING

#### A: Publication in Journals

- Y.I. Murthy, S. Gandhi and A. Kumar, "Micro-Characterization Of Pure Mg And AZ91D Used As Sacrificial Anodes In Reinforced Cement Concrete", International Journal of Scientific & Technology Research, Vol.8, No.11, pp. 400-403, December 2019.
- Y.I. Murthy, S. Gandhi and A. Kumar, "Corrosion Mitigation of Reinforcement in Concrete using Magnesium Anodes", International Journal of Recent Technology and Engineering (IJRTE) Vol.8, No.4, pp. 1950-56, November 2019.
- A. Verma and S. Verma, "Seismic Analysis of Building Frame using P-Delta Analysis and Static & Dynamic Analysis: A Comparative Study", I-manager's Journal on Structural Engineering, Vol. 8, No. 2, pp. 52-60, August 2019.
- S Goswami and D.K. Shukla "Light Weight Building Blocks using Industrial Waste", International Journal for Scientific Research & Development, Vol. 7, No. 05, pp.38-42, July 2019.
- S Goswami and D.K. Shukla. "Prediction of Accidental Analysis for Jhansi City', International Journal for Scientific Research & Development, Vol. 7, No. 05, pp.4-9, July 2019.



Educational tour to the university campus by the students of nearby Govt. Schools.

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Award distribution in "Hunch it event" conducted by CEF on October 10, 2019.



 Prof. S. Arunachalam attended the Cyclone Resistant Structures Sectional Committee, CED-57 of the Bureau of Indian Standards, representing JUET, held at New Delhi on August 19, 2019.

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### C. Awards/Honors/Recognition

• Mr. Y. I. Murthy has been recognized as a Chartered Engineer (CEng.) by the Institution of Engineers, on August 23, 2019.

### D: Student's activities

- The Civil Engineering Forum (CEF) organized the following event during the period:
  - Hunch It : October 10, 2019

### E: Student's Achievements

 Mr. Sameer Prakash (161D048), cleared the level one at Oasis, an international competition organized by Korean International Promotion Association (KIPA) held on July 03, 2019. He is one amongst the 50 participants across the world to qualify this level.

### F: Faculty Seminar

Prof. S. Arunachalam delivered a seminar on topic, "Cyclone Disaster Mitigation", on December 31, 2019.

### **COMPUTER SCIENCE AND ENGINEERING**

### **A: Publication in Journals**

- Prateek Pandey and Ratnesh Litoriya, "Securing and Authenticating Healthcare Records through Blockchain Technology", Cryptologia, DOI: 10.1080/01611194.2019.1706060, December 2019.
- Narendra Sharma, Ratnesh Litoriya, Deepika Sharma, and H. P. Singh, "Designing a Decision Support Framework for Municipal Solid Waste Management," International Journal Emerging Technology, Vol. 10, No. 4, pp. 374–379, December 2019.
- Prateek Pandey and Ratnesh Litoriya "Fuzzy AHP based identification model for efficient application development", Journal of Intelligent & Fuzzy Systems (IOS Press), pp. 1-12, DOI: 10.1007/s11277-019-06351-9, November 2019.
- Prateek Pandey and Ratnesh Litoriya, "Elderly Care through Unusual Behavior Detection: A Disaster Management Approach using IoT and Intelligence," IBM Journal of Research and Development, DOI: 10.1147/JRD.2019.2947018, October 2019.
- Mamta Pandey, Ratnesh Litoriya, and Prateek Pandey "Validation of Existing Software Effort Estimation Techniques in Context with Mobile Software Applications". Wireless Personal Communications, DOI: 10.1007/s11277-019-06805-0, September 2019.
- Mamta Pandey, Ratnesh Litoriya, and Prateek Pandey, "Application of Fuzzy Dematel Approach in Analyzing Mobile App Issues", Programming and Computer Software, Vol. 45, No. 5, pp 268–287, https://doi.org/10.1134/S0361768819050050, September 2019.
- Kunj Bihari Meena and Vipin Tyagi, "A copy-move image forgery detection technique based on Gaussian-Hermite moments", Multimedia Tools and Applications, Vol. 78, No. 23, pp 33505–33526, DOI: https://doi.org/10.1007/978-981-13-9939-8\_7, August 2019.
- Varun Kumar Sharma, Lal Pratap Verma and Mahesh Kumar, "CL-ADSP: Cross-Layer Adaptive Data Scheduling Policy in Mobile Ad-hoc Networks", Journal Future Generation Computer Systems, vol. 97, pp 530–563, August 2019.
- Anju Shukla, Shishir Kumar, and Harikesh Singh, "Fault Tolerance Based Load Balancing Approach for Web Resources", Journal of the Chinese Institute of Engineers. DOI: https://doi.org/10.1080/02533839.2019.1638307, July 2019.
- Shipra Shukla and Mahesh Kumar, "Optimized MRAI Timers for Border Gateway Protocol in Large Networks", International Journal of Distributed Systems and Technologies, Vol. 10, No. 4, pp 31–44, 2019.

#### B: Conference/Seminar/Workshop Participated

- Dr. Prateek Pandey has delivered a Seminar on "Status of Gender Equality in India" in JUET, on December 17, 2019.
- Dr. Rahul Pachauri attended Faculty Development Program (FDP) on "VLSI Chip Design Hands-on using Open Source EDA" organized by Electronics and IT academy of Department of Electronics and Information Technology, Govt. of India, IITDM, Jabalpur, at JUET during December 16-20, 2019.
- Dr. Dinesh Kumar Verma, Mr. Kunj Bihari Meena, , Mr. Partha Sarathy Banerjee, Dr. Ratnesh Litoriya, and Dr. Mahesh Kumar, Dr. Nilesh R. Patel, Ms. Deepika Singh Kushwaha, Mrs. Nivedita Singh, Mr. Kanderp Narayan Mishra attended Faculty Development Program (FDP) on "Deep Learning and Applications" organized by Electronics and IT academy of Department of Electronics and Information Technology, Govt. of India, IITDM, Jabalpur, at JUET during December 09-13, 2019.
- Dr. Mahesh Kumar, Dr. Nilesh R. Patel, and Dr. Amit Kumar Srivastava delivered lectures in Teachers Training Program for School Teachers on "Programming in Python (including Django) & AI" at JUET, Guna during December 06-08, 2019.
- Dr. Dinesh Kumar Verma, Dr. Prateek Pandey, Mr. Kunj Bihari Meena, Mr. Partha Sarathy Banerjee, Dr. Ratnesh Litoriya, Dr. Rahul Pachauri , Dr. Ajay Kumar, Dr. Nilesh R. Patel, Mr. Utkarsh Sharma, Mrs. Prerana Rai, Ms. Deepika Singh Kushwaha, Mrs. Sameeksha Shrivastava , Mr. Mayank Shrivastava, Mr. Kanderp Narayan Mishra attended Faculty Development Program (FDP) on "Python Programming with Industry Perspectives" organized by Electronics and IT academy of Department of Electronics and Information Technology, Govt. of India, IITDM, Jabalpur, at JUET during December 02-06, 2019.
- P S Banerjee delivered an invited talk on "Frontiers of Artificial Intelligence" at a workshop organised at Gyanodaya Sr. Secondary School, Khurai, MP, India, on November 21, 2019.
- Dr. Dinesh Kumar Verma and Dr. Prateek Pandey attended Workshop on "Evaluation Reforms in Higher Education" organized by University Grant Commission, Central Regional Office, Bhopal at National Law University Institute, Bhopal during October 24-25, 2019.
- Dr. Dinesh Kumar Verma, Dr. Ajay Kumar, Dr. Rahul Pachauri, Dr. Nilesh R. Patel, and Mr. Kunj Bihari Meena, Ms. Deepika Singh Kushwaha, Mr. Kanderp Narayan Mishra attended AICTE Faculty Induction Program on "Universal Human Values for Students Induction" organized by AICTE, at JUET Guna during September 16-18, 2019.



Two-week workshop on "Advancements in Software Engineering", organized during August 04-17, 2019 by Department of CSE.

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## Lab session by Dr. **Carsten Mueller during** ASE-2019 workshop.



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### C: Conferences/Seminars/Workshops organized

- Department organized FDP on "Deep Learning & Applications" jointly organized by Electronics and IT academy of Department of Electronics and Information Technology, Govt. of India, IITDM, Jabalpur and conducted at JUET Guna during December 09-13, 2019. Total 30 participants participated in the FDP.
- Department organized Teachers Training Program on "Programming in Python (including Django) & AI" School Teachers at JUET, Guna during December 06-08, 2019. Total 63 participants from different schools across the country participated in the program.
- Department organized FDP on "Python Programming with Industry Perspectives" jointly organized by Electronics and IT academy of Department of Electronics and Information Technology, Govt. of India, IITDM, Jabalpur and conducted at JUET Guna during December 02-06, 2019. Total 30 participants participated in the FDP.
- Department conducted CCNA Routing & Switching Module1: Training at JUET, Guna during July 20 - October 20, 2019.
- Department organized two-week workshop on "Advancements in Software Engineering", during August 04-17, 2019.

### **D: Publication of Book Chapter**

- Prateek Pandey, Shishir Kumar, and Sandeep Srivastava, "Application of Fuzzy Logic in Investment-Intensive Decision Making", Handbook of research on emerging applications of fuzzy algebraic structures. IGI Global, pp 280-292, https://doi.org/10.4018/978-1-7998-0190-0, , October 2019.
- Amit Kumar Srivastava and Shishir Kumar, "An Experimental analysis of Similaity Measures Effect for identification of Software Component Composition Services on the Basis of Use-cases", in Advances in Computing and Data Sciences vol 1045, pp.487-499, July 2019.
- Kunj Bihari Meena, Vipin Tyagi, "Methods to Distinguish Photorealistic Computer Generated Images from Photographic Images: A Review", Advances in Computing and Data Sciences. ICACDS 2019. Communications in Computer and Information Science, vol 1045. Springer, Singapore, July 2019.
- Prateek Pandey and Ratnesh Litoriya, "A Predictive Fuzzy Expert System for Crop Disease Diagnostic and Decision Support", In Fuzzy Expert Systems and Applications in Agricultural Diagnosis, IGI Global, pp 175-194, https://doi.org/10.4018/978-1-5225-9175-7.ch010fran, July 2019.
- Mamta Pandey, Ratnesh Litoriya, and Prateek Pandey, "Empirical Analysis of Defects in Handheld Device Applications", In Advances in Computing and Data Sciences, Communications in Computer and Information Science, vol 1046, Springer, Singapore, pp 103-113, https://doi.org/10.1007/978-981-13-9942-8\_10, July 2019.

#### **E: Award and Honours**

- Dr. Ratnesh Litoriya received "International Award for Professor with Huge Potential in Engineering", in International Award Convention organised by Research foundation of India in collaboration with World Federation of Science & Technology, December 21, 2019.
- Dr. Ratnesh Litoriya has been appointed external examiner to conduct viva voce of Ph.D degree at Sri Satya Sai University of Technology & Medical Sciences, Sehore (M.P.) on September 18, 2019.

### F: Ph.D. Awarded

- Ph.D. degree has been awarded to Mr. Amit Kumar Srivastava by the University for his thesis entitled, "Analysis and Design of Intelligent Techniques for Improvements in Component-Based Software Engineering", under the supervision of Prof. Shishir Kumar in December, 2019.
- Ph.D. degree has been awarded to Ms. Mamta Pandey by the University for her thesis entitled, "Improving Software Engineering Practices for Mobile Application Projects", under the supervision of Dr. Ratnesh Litoriya and Dr. Prateek Pandey in December, 2019.

#### G: Student's activities

The Students branch of Computer Society of India, Bitwise - JUET Programming Hub and Mozilla Phoenix Club organized following events: : December 15, 2019

: November 21-22, 2019

: November 19,2019 : November 18, 2019

: November 16, 2019

: November 14, 2019

: September 07, 2019

: September 23-24, 2019

: October 01, 2019

: August 31, 2019

: August 24, 2019

- Winter Of Code
- Portfolio Designing Workshop
- Kodeathon A5
- Aha!| get Git Workshop
- Quibble 2019
- Kodeathon A4
- Hacktoberfest 2K19
- Kodeathon A1 & A2 WAR FOR TREZOR
- Linux Install Fest
- Kodeathon A3
- **H: Faculty Seminar**
- Mr. Mr. P.S. Banerjee delivered a seminar on "Natural Language Processing and its Societal Impacts" on November 11, 2019.
- Prof. Shishir Kumar delivered a seminar on "Design Thinking for Innovation" on October 09, 2019.

### **ELECTRONICS AND COMMUNICATION ENGINEERING**

#### **A: Publication in Journals**

- Mahesh K. Singh, A.K. Singh, Narendra Singh "Multimedia utilization of non-computerized disguised voice and acoustic similarity measurement", Multimedia Tools and Applications, Springer journal. Vol. 78, No. 24, pp. 1-17, December 2019.
- Rishika Chauhan, Pankaj Dumka, Dhananjay R. Mishra, "Modeling conventional and solar earth still by using LM algorithm based artificial neural network", International Journal of Ambient Energy, Taylor & Francis, DOI: 10.1080/01430750.2019.1707113. December 2019.



**Students of ECE** participating in IOT workshop held on October 09-10, 2019.

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**Demonstration of Robot** by ECE students during **Robotic Workshop held** on November 19-21, 2019.

## July-December, 2019

- Sanjeev Kumar, Ravi Kumar, Mahesh Kumar Singh, Durgesh Nandan, "A Multiple Band-Notched Monopole Antenna with Incorporated GSM and UWB for Wireless Applications", International Journal of Advanced Science and Technology, Vol.28, No.16, pp.362.378, November, 2019.
- Dharmendra Jain, Jitendra Kanungo, and S. K. Tripathi, "Synergistic Approach with Redox Additive for the Development of Environment Benign Hybrid Supercapacitor", Journal of the Electrochemical Society Vol. 166, No. 14, pp. A3168-A3181, September 2019.
- Sanjeev Kumar, Durgesh Nandan, Amit Shivhare, Ravi Kumar "A Multiple L-Shaped Slot Loaded Antenna with Multiband Circularly Polarized for WLAN and WiMax Applications", International Journal Engineering and Advanced Technology (IJEAT), Vol.8, No. 6, pp.976-980. DOI:10.35940/ijeat.F1186.0886S19 August, 2019.
- **B: Publication in Conference Proceeding**
- Sumit Tripathi, Sunidhi & Shivam Pandey, "Unbiased mortality prediction for unbalanced data using machine learning" in Proceedings of IEEE International Conference on Electrical, Electronics and Computer Engineering (UPCON- 2019), Aligarh, November 08-10, 2019, pp.88-96.

### C: Conference/Seminar/Workshop Participated

- All faculty members of the department attended VLSI Design using Open source (FDP)-Methodologies & Challenges in Digital Integrated Circuits and Memory design, sponsored by E&ICT Academies of IIT (Roorkee, Guwahati), MNIT Jaipur, NIT Patna and IIITDM, Jabalpur during December 16-20, 2019.
- Deepak Sharma, Shefali Sharma, Subodh Kumar Singhal, Ranu Gupta, Rishika Chauhan attended fiveday faculty development program on Deep Learning organized by JUET Guna and jointly sponsored by E&ICT Academies of MNIT Jaipur, NIT Patna and IIITDM, Jabalpur on December 9-15, 2019.
- Rajesh Kumar Vishwakarma and Deepak Sharma attended Python Programming with Industry Perspective (FDP) sponsored by E&ICT Academies of MNIT Jaipur, NIT Patna and IIITDM, Jabalpur on December 2-6, 2019.
- Rajesh Kumar Vishwakarma contributed as Organizing Committee member in International Conference on Recent Trends in Engineering, Management and Science (ICRTEMS-2019) DITMR -Faridabad, Haryana, September 26-27, 2019
- All faculty member of the department attended three-day AICTE Faculty Induction Program on "Universal Human Values for Student Induction" organized at Jaypee University of Engineering and Technology, Guna during September16-18, 2019.

### **D: Student's activities**

- Following events have been organized during the period:
  - Robotics Workshop : November 19-21, 2019
  - IOT Workshop
    - E-waste collection
    - : October 06, 2019 Arduino Workshop : September 30 to October 01, 2019
  - : September 06, 2019 **Orientation Program**

#### E: Faculty Seminar

Dr. Ranu Gupta delivered a seminar on "Image Processing and its Applications" on November 20, 2019

: October 09-10, 2019

### F: New Lab Establishment

Transducer Lab has been established in the department.

### **MECHANICAL ENGINEERING**

#### A: Publication in Journals

- Akshay Jain and Bhagat Singh, "Parametric analysis during laser cutting of basalt-glass hybrid composite", Laser in Manufacturing and Materials Processing, Springer, DOI:10.1007/s40516-019-00110-1, December, 2019.
- Dhananjay R. Mishra, Girish Dutt Gautam, Divayanshu Prakash, Abhay Bajaj, Abhishek Sharma, Rajat Bisht, Siddharth Gupta, "Optimization of Kerf Deviations in Pulsed Nd:YAG Laser Cutting of Hybrid Composite Laminate Using GRA", FME Transactions, Vol. 48, No. 1, PP. 109-116, December 2019.
- Girish Dutt Gautam, Dhananjay R. Mishra, Firefly algorithm based optimization of kerf quality characteristics in pulsed Nd : YAG laser cutting of basalt fiber reinforced composite, Composite Part B: Engineering, Vol. 176, No. 107340, November 2019.
- Akshay Jain, Bhagat Singh and Yogesh Shrivastava, "Reducing the heat-affected zone during the laser beam drilling of basalt-glass hybrid composite", Composite Part B: Engineering, Elsevier, Vol. 176: pp. 107294, DOI:10.1016/j.compositesb.2019.107294, November, 2019.
- Yogesh Shrivastava and Bhagat Singh, "Online monitoring of tool chatter in turning based on ensemble empirical mode decomposition and Teager Filter", Transactions of the Institute of Measurement and Control, Sage, DOI:10.1177/0142331219885 511, November, 2019.
- Prashant Kumar Shrivastava, Bhagat Singh, Yogesh Shrivastava, Arun Kumar Pandey and Durgesh Nandan, "Investigation of optimal process parameters for laser cutting of Inconel-718 sheet", Journal of Mechanical Engineering Science, IMechE - Part C, Sage, DOI:10.1177/0954406219895533, November, 2019.
- Pankaj Dumka, Aman Sharma, Yash Kushwah, Aman Singh Raghav, Dhananjay R. Mishra, "Performance evaluation of single slope solar still augmented with sand-filled cotton bags", Journal of Energy Storage, Vol. 25, No. 100888, October 2019.
- Abhishek Aswal, Aditya Jha, Anshul Tiwari and Yashwant Kumar Modi, "CNC Turning Parameter Optimization for Surface Roughness of Aluminium-2014 Alloy Using Taguchi Methodology", Journal Européen des Systèmes Automatisés, Vol. 52, No. 4, pp. 387-390. October 2019.
- Subas Chandra Dash, Navtej Singh, "Effect of a strong axial magnetic field on swirling flow in a cylindrical cavity with a top rotating lid" International Journal of Modern Physics C, Vol.30, No.11, pp.1950092(1-24), October 2019.
- Kedari Lal Dhaker, Bhagat Singh and Yogesh Shrivastava, "Adaptive neuro-fuzzy inference system based modeling of recast layer thickness during laser trepanning of Inconel-718 sheet" Journal of the Brazilian Society of Mechanical Sciences and Engineering, Springer, Vol. 41: pp. 423, DOI: 10.1007/s40430-019-1933-2. September. 2019.



**School Children with** their AIR JET TOY participating in AWIM competition organized by **MEC department of the** University.

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Mechanical branch students enjoying water gun event held on November 13, 2019.

### July-December, 2019

- Akshay Jain, Bhagat Singh and Yogesh Shrivastava, "Heat affected zone investigation during the laser beam drilling of hybrid composite using statistical approach" The Arabian Journal for Science and Engineering, DOI: 10.1007/s13369-019-04162-5, September, 2019.
- Akshay Jain, Bhagat Singh and Yogesh Shrivastava, "Analysis of heat affected zone (HAZ) during micro drilling of a new hybrid composite" Journal of Mechanical Engineering Science, IMechE - Part C, Sage, https://doi.org/10.1177/0954406219877911, September, 2019.
- Akshay Jain, Bhagat Singh and Yogesh Shrivastava, "Investigation of kerf deviations and process parameters during laser machining of basalt-glass hybrid composite", Journal of Laser Application, AIP publishing, Vol. 31, pp. 032017, August 2019.
- Subas Chadra Dash, Navtej Singh, "Influence of Axial Magnetic Field on Swirling Flow and Vortex Breakdown Zones in a Cylindrical Cavity with a Rotating Lid", International Journal of Applied Mechanics, Vol.11, No.06, pp. 1950054(1-23), August 2019.
- Girish Dutt Gautam, Dhananjay R. Mishra, Evaluation of geometrical quality characteristics in pulsed Nd:YAG laser cutting of Kevlar-29/Basalt fiber reinforced hybrid composite using grey relational analysis based genetic algorithm, FME Transactions, Vol. 47, No. 3., pp. 560-575, July 2019.
- Abhishek Srivastava, Adarsh Sharma, Aditya Singh Gaur, Rahul Kumar and Yashwant Kumar Modi, "Prediction of surface roughness for CNC turning of EN8 steel bar using artificial neural network model.", Journal Européen des Systèmes Automatisés, Vol. 52, No. 2, pp. 185-188. July 2019.

### B: Conference/Seminar/Workshop Participated

- Mr. K.L. Dhaker attended five day faculty development program on Deep Learning organized by JUET Guna and sponsored jointly by E&ICT Academies of MNIT Jaipur, NIT Patna and IIITDM, Jabalpur on December 9-13, 2019.
- Dr. Yashwant Kumar Modi and Mr. Pankaj Gupta attended a workshop on Design Thinking organized by SAP India Pvt Ltd for faculty members at JUET, Guna on October 10, 2019.
- Dr. Bhagat Singh, Dr. Amit Sharma, Dr. Yashwant Kumar Modi and Mr. K.L. Dhaker attended three day AICTE Faculty Induction Program on "Universal Human Values for Student Induction" organized at Jaypee University of Engineering and Technology, Guna during September16-18, 2019.

### C: Ph.D. Awarded

 Ph.D. degree has been awarded to Mr. Yogesh Shrivastava by the University for his thesis entitled, "Stability Analysis of CNC Lathe for Higher Material Removal", under the supervision of Dr. Bhagat Singh in October, 2019.

### **D: Patents Filed**

Dr. Dhananjay R Mishra has filed an Indian Patent on 31/12/2019 at Government of India patent office, Intellectual property office building, SM Road, Mumabi-400037. Titled as "Earth solar still augmented with the sandbag and black dust cloth covered perforated floating plate", Docket No. 67733, CBR Number:28200 and Patent Number:201924054660.

### E: Student's Activities

- Mechanical Engineering Society (MES) organised following events during the period:
  - Orientation session : September 26, 2019
    - Set the Angle : November 13, 2019
  - Water Gun : November 13, 2019

### CHEMISTRY

### **A: Publication In Journals**

- Surendra Kumar Parashar, Sunil Kumar Srivastava, Vijay Kumar Garlapati, Narendra Nath Dutta "Production of microbial enzyme triacylglycerol acyl hydrolase by Aspergillus sydowii JPG01 in submerged fermentation using agro-residues". Asian Journal of Microbiology, Biotechnology and Environmental Science, Vol. 21, No. 4, pp. 269-273, December 2019.
- D. Agrawal, S. K. De, Y. Shrivastava, & P. K. Singh, "Synthesis of a novel post-metallocene titanium complex of chelating [ONOO]-type ligand and studies on the effect of an extra donor arm on its reactivity in aqueous emulsion polymerization". Polymer Bulletin (Springer), Vol 76, pp 1-22, https://doi.org/10.1007/s00289-019-02961-2, September 2019.
- Surendra Kumar Parashar, Sunil Kumar Srivastava, Vijay Kumar Garlapati "The mathematical modeling for the optimization of triacyl glycerol acylhydrolase production through artificial neural network and genetic algorithm" International Journal of Pharma and Biosciences, Vol. 10, No. 3, pp. 135-143, July 2019.
- D. Agrawal, Y. Shrivastava, S. K. De and P. K. Singh "Synthesis of post-metallocene catalyst and study of its olefin polymerization activity at room temperature in aqueous solution followed by prediction of yield". Journal of Polymer Research, Vol. 26, No. 7, pp. 167 (1-16), July 2019.

### B: Conference/Seminar/Workshop Participated

- Prof. P. K. Singh and Dr Sunil Kumar Srivastava attended three-day AICTE Faculty Induction Program on "Universal Human Values for Student Induction" organized at Jaypee University of Engineering and Technology, Guna during September16-18, 2019.
- Dr. Rashmi Tyagi participated and attended a workshop on "Design Thinking" organized by SAP India Pvt. Ltd. At JUET Guna on October 10, 2019.

### C. Ph.D. Awarded

 Ph.D. degree has been awarded to Mr. Surendra Kumar Parashar by the university for his Thesis entitled, "Production, characterization and immobilization of fungal lipase produced using soybean husk as a substrate", under the supervision of Dr Sunil Kumar Srivastava in December 2019.

### HUMANITIES AND SOCIAL SCIENCES

- A. Conference/Seminar/Workshop Participated
- Dr. Sandeep srivastava, Dr. Rachna Chaturvedi and Dr. Kamini Bhasin attended a meditation session by Heartfulness Institute Hyderabad at JUET, Guna on November 5, 2019.



Participants of SAP Event held on 10 October 2019.

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5 Ph.D. degrees have been awarded by the University during July to December, 2019.

Departments	No. of Ph.D Awarded
CSE	2
MEC	1
Chemistry	1
Mathematics	1

 Dr. Sandeep Arya, Dr. Abhishek Shukla, Dr. Shekhar Singh, and Dr. Kamini Bhasin attended a workshop on Design Thinking organized by SAP India Pvt Ltd for faculty members at JUET, Guna on October 10, 2019.

July-December, 2019

- Dr. Sandeep srivastava, Dr. Rachna Chaturvedi, Dr. Abhishek Shukla and Dr. Kamini Bhasin attended three-day AICTE Faculty Induction Program on "Universal Human Values for Student Induction" organized at Jaypee University of Engineering and Technology, Guna during September16-18, 2019.
- Dr. Sandeep Srivastava attended 'Training of Teachers for Deeksharambh- Student Induction Programme (SIP)', organized by University Grants Commission (UGC), Central Regional office Bhopal at NLIU, Bhopal during August 21-23, 2019.

### **B. Research Project**

A Research Project entitled "An evaluative study of digitally empowering urban and rural women in the district of Guna, Madhya Pradesh" has been sanctioned to Dr. Rachna Chaturvedi by Indian Council of Social Sciences, Ministry of HRD for duration of one year on November 13, 2019. Total budget of the project is ₹ 3 Lakhs.

### **C. Faculty Seminar**

- Mr. Neeraj Jain delivered a seminar on "Hindi: Some interesting facts" on December 5, 2019.
- Dr. Rachna Chaturvedi delivered a seminar on "Economics for everyone" on October 24, 2019.

### MATHEMATICS

### A: Conference/Seminar/Workshop Participated

- Dr. D.K. Sharma and Dr. Divya jain attended five day Faculty Development Program on "Deep Learning and Applications" organized at Jaypee University of Engineering and Technology, Guna during December 9-13, 2019.
- Dr. D.K. Sharma and Dr. Divya jain attended five day Faculty Development Program on "Python Programming with Industry Perspectives" organized at Jaypee University of Engineering and Technology, Guna during December 2-6, 2019.
- Dr. D.K. Sharma, Dr. B.R Gupta and Dr. Divya Jain attended three day AICTE Faculty Induction Program on "Universal Human Values for Student Induction" organized at Jaypee University of Engineering and Technology, Guna during September16-18, 2019.

#### B: Ph.D. Awarded

 Ph.D. degree has been awarded to Ms. Reetu Kumari by the University for her thesis entitled "Entropy and Divergence Measures with Multi-Criteria Decision Making Models under Uncertain Environment" under the supervision of Dr. Dilip Kumar Sharma on October 24, 2019.

### MATHEMATICAL SCIENCES

### A: Conference/Seminar/Workshop Participated

- Prof. Vipin Tyagi chaired a session during IEEE international conference ICIIP at JUIT Waknaghat during November 15-17, 2019.
- Prof. Vipin Tyagi participated in IEEE international conference ICIIP at JUIT Waknaghat as Publication committee chair during November 15-17, 2019.
- Prof. Vipin Tyagi chaired a session during International Conference on Artificial Intelligence and Speech Technology (AIST2019) at Indira Gandhi Delhi Technical University for Women, Delhi.during November14-15, 2019.
- Prof. Vipin Tyagi delivered an invited talk at International Conference on Advances in Technology, Management and Sciences (iATMS 2019), at American College of Dubai, Dubai during October 30-31, 2019.

#### B: Books/ Book Chapters published

- Advances in Computing and Data Science, Part 2, Editors: Mayank Singh, P.K. Gupta, Vipin Tyagi, Jan Flusser, Tuncer Oren, Rekha Kashyap., Springer Singapore publishers, 2019 DOI: 10.1007/978-981-13-9942-8 ebook ISBN 978-981-13-9942-8, Hardcopy ISBN 978-981-13-9941-1.
- Advances in Computing and Data Science, Part 1, Editors: Mayank Singh, P.K. Gupta, Vipin Tyagi, Jan Flusser, Tuncer Oren, Rekha Kashyap., Springer Singapore publishers, 2019 DOI: 10.1007/978-981-13-9939-8 ebook ISBN 978-981-13-9939-8, Hardcopy ISBN 978-981-13-9938-1.
- G. Raghuwanshi, Vipin Tyagi, Impact of Feature Extraction Techniques on a CBIR System, Communications in Computer and Information Science, vol 1045, pp 338-348, Springer Singapore.

#### TRAINNING AND PLACEMENT

More than 60 in-campus recruitment companies have visited and around 3 off-campus recruitment opportunities provided for 2020 batch recruitment process by companies like AMAZON, One Direct, GOOGLE, ZS Associates, Accolite Software Pvt. Ltd., HackWithInfy-Infosys Ltd.- Power Programmer , InfyTQ-Infosys Ltd.- Power Programmer, TCS Digital\*, Kuliza Technologies, Valuefy Solutions, TrustNet Tech., McKinley & Rice Creativity Pvt. Ltd., TestBook, GEEKS FOR GEEKS, Gradeup, Hitachi Consulting Corporation, Octro Inc., IIMJobs.com, Kritikal Vision (Solutions), Sourcefuse Technologies, Syandan Technologies, HackWithInfy-Infosys Ltd.- System Engineer Specialist, Abhidhya Technologies, Samrter Codes, Samsung Display Pvt. Ltd., Venus Equipments Ltd.\*, HackWithInfy-Infosys Ltd.- System Engineer, Infosys Ltd., Cognizant Technology Solutions, Sports Keeda, Uplers Solutions Pvt. Ltd., Ericsson India, Deltecs Infotech Pvt. Ltd. (Drona HQ), Growthfile Analytics Pvt. Ltd., NIIT Technologies, TATA Consulting Service Ltd.\*, Wipro Ltd., Collabera, JMC Projects (India) Ltd. (Kalpataru Group), MapMyIndia, OverSeas Travels Ltd.

The highlights for placement offers are as follow:-

- CSE students B. Poorna and Harsh Srivastava received highest package of 28 Lakhs/PA by AMAZON.
  CSE students Avi Anand, Gaurav Dhingra and Vikrant Srivastava received package of 20Lakhs/PA by
- CSE students Avi Anand, Gaurav Dhingra and Vikrant Srivastava received package of 20Lakits/PA by One Direct.
   CSE students Aparna Dubay and Day Agarwal received package of 12.00 Lakits / DA by Coople
  - CSE students Aparna Dubey and Dev Agarwal received package of 13.00 Lakhs/PA by Google.
  - Civil Engineering student Shanu Bhatt received package of 8.93 Lakhs/PA by ZS Associates.
    CSE students Harsh Srivastava, Pawan Kumar Mishra and Shubham Tyagi received package of 8.00 Lakhs/PA by Accolite Software Pvt. Ltd.

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## **IAYPEE UNIVERSITY** OF ENGINEERING & TECHNOLOGY, GUNA ntioned students for amazon at CTC IARSH SRIVASTAVA 161B089-CSE Lakhs/PA

## Harsh Srivastava and B. Poorna student of CSE 2016-20 batches offered 28 Lachs/PA by Amazon.

- CSE students Satyam Prakash and Shakir received package of 8.00 Lakhs/PA by Infosys through HackwithInfy and InfyTq National Hiring respectively for Power Programmer Profile.
- CSE students Khushboo Parwani, Prashant Tyagi and Utkarsh Mishra received package of 7.60 Lakhs/PA by TATA Consulting Service Ltd. through TCS Digital National Hiring.

July-December, 2019

:November 23, 2019

:November 14, 2019

:November 09, 2019

:November 02, 2019

:October 12, 2019 :October 11, 2019

:October 02, 2019

:August 31, 2019

:August 29, 2019

:August 21, 2019

:August 15, 2019

:September 27, 2019

:September 22, 2019 :September 05, 2019

:November 16-17, 2019

- CSE students Abhishek Sharma, Ajitesh Singh, Amitesh Srivastava, Ankit Saxena and Rituraj Mishra received package of 7.50 Lakhs/PA by Kuliza Technologies.
- CSE students Chirayu Brijwani, Prakhar Gupta and Santanu Raj Kapil received package of 7.5 Lakhs/PA by Valuefy Solutions.
- CSE students Aseem Agarwal, Bhanu Pratap and Siddhant Agnihotri received package of 7.20 Lakhs/PA by TrustNet Tech.
- CSE students Rishabh Jain and Shrey Gupta received package of 7.00 Lakhs/PA by McKinley & Rice Creativity Pvt. Ltd.
- CSE students Ritwik Shanker and Sidharth Gupta received package of 7.00 Lakhs/PA by TestBook.
  - Mechanical Engineering students Chitransh Kaustubh and Tapish Gupta received package of 4.50 Lakhs/PA by Samsung Display Pvt. Ltd.
  - Mechanical Engineering student Sanchay Srivastava received package of 4.50 Lakhs/PA by Venus Equipments Ltd.
  - More than 20 companies offered package above 6 Lakhs PA CTC.
  - Overall placement percentage offer wise is 140.50%.
  - 79 Students are placed in more than one company.
  - Average package offered to students is approx. 5.2 Lakhs/PA.
  - 264 students have been offered CTC 4 Lakhs/PA and above.
  - 8 students (less than 6 CGPA) are also placed.

Placement record of B.Tech. (2016-20) batch	as on Jai	n. 2020.				
Content	CSE	ECE	MECH	CHEMICAL	CIVIL	TOTAL
No. of Admitted students	268	22	57	2	48	397
No. of Eligible students	227	18	37	0	34	316
Students opted for higher studies	11	2	8	0	6	27
No. of students interested for placement	216	16	29	0	28	289
Total no. of offers to students	336	19	28	0	14	397
% of students placed -Total Offer wise -	155.56	118.75	96.55	0.00	50.00	137.37
Based on eligible interested students						

### JUET YOUTH CLUB (JYC)

Following activities have been conducted by various wings of JYC during July 01, 2019 to December 31, 2019: :November 26, 2019

- **Constitution Day**
- **Traditional Night**
- Jaypee Model United Nations-2019
- Guru Nanak Jayanti
- Halloween
- Vigilance Awareness Week-2019
- **Musical Evening**
- Box Office
- Gandhi Jayanti (50th Birth Celebration)
- **Together Against Corruption**
- Swachchhta Abhiyan
- Teacher's day
- Fresher's (Al party do grand de freshers)
- Fit India Movement
- Fresher's Introduction
- Independence day

### **LEARNING RESOURCE CENTRE (LRC)**

- Three hundred thirty eight (338) volumes of books comprising of 305 newly purchased and 33 gifted books have been added to LRC.
- Subscription of more than 10000 on-line magazines and newspapers have been renewed.
- Subscription of Anti-Plagiarism Software "URKUND" is available under ShodhShuddhi program of Ministry of HRD, Govt. of India.

### **PROMOTIONS AND APPOINTMENTS**

- Dr Ranu Gupta (ECE) has been promoted from Assistant Professor G-II to Assistant Professor (SG).
- Mr. Sumit Dubey joined as Senior Engineer in WEAC on September 01, 2019.
- Shri Deepak Sharma joined Accounts Department as Account Assistant on July 06, 2019.
  - Ms. Rashmi Rajak has joined Medical Centre as Jr. Nurse on August 01, 2019.
- Sh. Shishir Thakur and Sh. Ajay Naresh Prajapati have been promoted from NT-5 to NT-4 grade.
- Sh. Tarun Kumar Bhardwaj, Sh. Prakash Kumar Saini, Sh. Prabir Thakur, Sh. Kamlesh Sahu, Sh. Ravi Jha and Sh. P. Seshagiri have been promoted from NT-6 to NT-5 grade.
- Sh. Sanjay Singh, Sh. Shesh Pratap Singh, Sh. Sanjeev Kumar Mehar and Sh. Satyapal Singh have been promoted from NT-7 to NT-6 grade.
- Sh. Hari Lal Rathore, Sh. Prabhat Singh Parihar, Sh. Kamlesh Bunker, Sh. Siyanand Gautam, Sh. Vinay Kumar Tiwari, Sh. Ramesh Chandra Tiwari and Sh. Sandeep Singh have been promoted from NT-8 to NT-7 grade.
- Sh. Rajesh Kumar Kori, Sh. Yogesh Giri, Sh. Chaman Singh, Sh. Himmat Singh, Sh. Ram Gopal Namdeo, Sh. Markandey Tiwari, Sh. Kishan Chand Thakur, Sh. Raj Boher Dahiya, Sh. Dheeraj Singh, Sh. Govind Singh, Sh. Megh Nath Musup, Sh. Khadak Bahadur's salary scale has been upgraded.
- Sh. Rohini Prasad Dwivedi, Sh. Arun Kumar Tripathi, Sh. Muneraj Yadav, Sh. Prem Lal Kushwaha and Sh. Sabir Khan have been given increment.