

OO BITS & BYTES

School of Engineering & Technology (2019-2020)



## ANNUAL REPORT

## JLU-SOET, BHOPAL

JLU School of Engineering & Technology pushes the frontiers of modern engineering and technology through teaching and research, with a mission to seek solutions to important global problems and to educate leaders who will turn great ideas into real changes that will make the world a better place.

JLU-SOET is the only institute of its type in central India which offers different specialization courses based on latest technologies, tools and diverse applications. The key objective behind offering these specialization courses is to bridge the gap between modern industry

JLU
SCHOOL OF ENGINEERING
&
TECHNOLOGY

INSIDER

**SOET - EVENTS** 

SOET COLLABORATIONS, INTERNATIONAL PROJECTS & INITIATIVES

**SOET- RESEARCH ACTIVITIES** 

SOET- FACULTY ACHIEVEMENTS

SOET- STUDENT ACHIEVEMENTS







**TABLE OF CONTENTS** 

TABLE OF CONTENTS	
CONTENT	PAGE NO.
ABOUT UNIVERSITY	3
ABOUT JLU-SOET	4
VISION & MISSION	5
FACULTY DETAILS	6
EVENTS	7
> INDUCTION PROGRAM	9
> EXPERT TALK	10-12
> WORKSHOPS	13-15
> CELEBRATIONS	16-18
> IGNITING MIND LECTURE	19
> CONTRIBUTION IN DONATION CAMP	20
> EDUCATIONAL & INDUSTRIAL VISITS	21-23
> SWACHCHH BHARAT OATH CEREMONY	24
COLLABORATIONS, INTERNATIONAL PROJECTS & INITIATIVES	25-30
> MOU SIGNED WITH COMPTIA	26
> TUNING INDIA PROJECT	27
> JLU-SOET AS CENTER FOR SWAYAM NPTEL LOCAL CHAPTER	29
> ONLINE SESSIONS FOR STUDENTS DURING LOCKDOWN	30
RESEARCH ACTIVITIES	31-41
> BOOK PUBLISHED	33
> BOOK CHAPTERS	33
> PAPER PUBLISHED	34-38
> PATENTS	39
> UNIVERSITY FUNDED PROJECTS	40
➤ GOVERNMENT FUNDED PROJECT (Ongoing)	41
FACULTY ACHIEVEMENTS	42-54
STUDENT ACHIEVEMENTS	55-79







## **ABOUT UNIVERSITY**

Jagran Lakecity University Bhopal is a private university established under Section 2(f) of UGC Act 1956 and is based out of Bhopal, Madhya Pradesh.

JLU Bhopal is one of the fastest growing and one of the most awarded university of Central India having practice based pedagogy at its core. Currently the university is offering 56 degree program to more than 2500 students from 8 countries and 27 states of India. The university has 27 partnership with top industries and international universities ensuring the students get great exposure both nationally and internationally. JLU Bhopal is the only participating university from Central India ERASMUS+ programme under the Tuning India Project, funded by the European Commission and is also currently the country chair for Association of Universities of Asia Pacific (AUAP).

The University has been bestowed with several prestigious awards, such as 'University of the Year' by Government of Madhya Pradesh for consecutive four years in 2015, 2016 2017 and 2018 and is recognized as a Global League Institution in 2015 at the House of Commons, London, UK. JLU Bhopal has been ranked "No. 1 Private University in Madhya Pradesh" in the year 2016, 2017, 2018 & 2019 by several leading publications.

500+ CEOs and top professionals have interacted with JLU students

27 International Universities as our Knowledge Partners 236 Acre campus with Hi-tech Creative & Practice Labs

1000+ Research publications and books published so far

10+ Patents filled

100 + MNCs have recruited JLU students across all schools







## **ABOUT JLU-SOET**

JLU- School of Engineering & Technology pushes the frontiers of modern engineering and technology through teaching and research, with a mission to seek solutions to important global problems and to educate leaders who will turn great ideas into real changes that will make the world a better place.

Each of our degree integrates elements of traditional engineering disciplines and draw on the strengths of our impressive faculty and their research experience. This foundation combined with practical design-based learning gives you the tools to envision new and effective solutions of top issues in our world and bring them in order to serve society and nation.

JLU-SOET is the only institute of its type in central India which offers different specialization courses based on latest technologies, tools and diverse applications. The key objective behind offering these specialization courses is to bridge the gap between modern industry and skilled graduates who can stand as true frontiers in the field of technology.

## **COURSES OFFERED**

B.Tech. (Hons.) Computer Science & Engineering with specialization in Artificial Intelligence B.Tech. (Hons.) Computer Science & Engineering with specialization in Cloud Technology & Cyber Security

Bachelor of Computer Applications

M.Tech. Computer Science & Engineering

Ph.D







## **OUR VISION & MISSION**

## **VISION**

- To contribute to Nation and the World through excellence in scientific and technical education and research.
- To be a Value based Globally Recognized Institution ensuring academic excellence and fostering Research, Innovation and Entrepreneurial attitude.

## **MISSION**

JLU-School of Engineering and Technology is committed to build an inclusive, diverse and responsible community recognized for:

- Providing an accessible, modern education in engineering and science for future, interdisciplinary leaders.
- Advancing knowledge through fundamental and applied research.









## **FACULTY DETAILS**

S.N	NAME OF FACULTY	DESIGNATION	QUALIFICATIONS	EXPERIENCE	
1	Dr. Dileep Kumar Singh	Assistant Professor(SG) & Head	PhD (MANIT Bhopal), M. Tech. (MANIT Bhopal), B. Tech.in CSE	15 years	
2	Dr. Vandana Rathore	Associate Professor	Ph.D, PGDCA, M.Sc,B.Sc, B.Ed.	18 years	
3	Dr. Shweta Singh	Assistant Professor (SG)	Ph.D, B.Sc, M.Sc	13 years	
4	Dr. Prashant Kumar Shukla	Assistant Professor (SG)	Ph.D, M.Tech, B.E	19 years	
5	Mr. Himanshu Singh	Assistant Professor	M.Tech, MBA, B.E	8 years	
6	Mr. Vaibhav Jain	Assistant Professor	Ph.D (pursuing), M.Tech,B.E	6 years	
7	Mr. Rajesh Sen	Assistant Professor	BCA, MCA	9 years	
8	Mrs. Sweta Gupta	Assistant Professor	Ph.D (pursuing), M.Tech,B.E	13 years	
9	Mr. Rajit Nair	Assistant Professor	Ph.D (pursuing), M.Tech,B.E	12 years	
10	Mrs. Anjali Nighoskar	Assistant Professor	M.Tech,B.E	5 years	
11	Mr. Atul Kumar Gupta	Assistant Professor	M.Tech,B.E	8 years	
12	Mr. Deepak Singh	Assistant Professor	M.Tech,B.E	5 years	
13	Ms. Abhilasha Singh	Assistant Professor	M.Tech,B.E	3 years	
14	Mrs. Akrati Sharma	Assistant Professor	M.Tech,B.E	2.5 years	





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School of Engineering & Technology 2019-2020

# EVENTS (2019-20)









## **SUMMARIZED EVENT REPORT FOR 2019-20**

03 Expert Talks

**03** Workshops

**01** Igniting Mind Lecture

03 Industrial Visits

**07** Other Events





School of Engineering & Technology 2019-2020

#### **INDUCTION PROGRAM**

The JLU School of Engineering and Technology welcomed its new batch (2019) with an Induction Program on July 14, 2019. Students were formally welcomed and introduced to the culture of the School, campus and University. The orientation began with a brief inaugural ceremony at JLU-SOET Campus. The dignitaries present on the occasion included Dr. Dileep Kumar Singh (Head, JLU-SOET), Dr. Bhagwan Singh (Chief librarian) and various Program Leaders. Dr. Dileep Kumar Singh addressed the students and motivated them to utilize the fantastic facilities at Jagran Lakecity University to the fullest and do well in life.

Dr. Bhagwan Singh shared various library policies regarding books facility at the university. School Exam Coordinator Dr. Vandana Rathore explained the examination policies, mark distribution criteria, attendance criteria. Himanshu Singh, Program Leader, Dept. Of ME, talked about the various industrial internships and training criterion. Ms. Abhilasha Singh mentioned about the various campus placements criteria. Mr. Rajesh Sen, Program Leader, Dept. Of BCA explained the roles of program leaders, CR roles and responsibilities.









## AN EXPERT TALK ON "TRENDS IN INFORMATION TECHNOLOGY"



An expert talk on "Trends in Information Technology" was organised at JLU-School of Engineering & Technology for their students from B.Tech and BCA Program. The talk was delivered by Mr Varun Sud, Head of Academic Alliance, CompTIA. CompTIA is a US-based non-profit trade association, issuing professional certifications for the information technology (IT) industry. It is considered one of the IT industry's top trade associations.

In this talk, Mr. Sud provided students with an inside look at a large-scale cloud and security operations and introduced them to real-world cyber security experience. He also mentioned that current trends are improving and presenting new functions in fields like medicine, entertainment, business, education, marketing, law enforcement, and more. Still, other much-anticipated technology is only now coming on the scene. To grace this event Dr. Dileep Kumar Singh, Head, JLU-SOET was present. He welcomed Mr. Sood and expressed the gratitude for his presence in this expert talk.

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## AN EXPERT TALK ON "INDUSTRY EXPECTATIONS FROM A PROFESSIONAL"





Ms. Goswami elaborated on the quality of leadership. Leadership is an important function of management which helps to maximize efficiency and to achieve organizational goals. The students were engaged during the entire two-hour session. They were told to utilize the college time to develop their leadership and networking skills. Dr. Dileep Kumar Singh, Head, JLU-SOET expressed his thanks to Ms. Goswami for the time and effort she took to share her thoughts and experiences with the students of JLU-SOET.

JLU-School of Engineering & Technology organized an expert talk on Industry Expectations from a Professional by Ms. Seema Goswami for the students of B.Tech and B.C.A on February 24, 2020. Ms. Seema Goswami is Director Human Resource at IT Blend of Group Companies, Pune. She talked about the competencies and required various skills in engineering students from corporate point of view. She emphasized the importance of professionalism in the corporate environment which is essential to be on the right track of success.







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## AN EXPERT TALK ON "BLOCK CHAIN TECHNOLOGY"

To extend learning beyond the classroom teaching, we at JLU always invite experts from different fields to conduct guest lectures, seminars and workshops. In the same line, an expert talk on latest emerging technology in IT sector called 'Blockchain' was organised by JLU-School of Engineering & Technology on 3rd September 2019. The expert talk was delivered by Mr. Rahul Chourasia, Project Manager, MAP\_IT, Department Of Information Technology, Govt.of M.P. He began with an introduction to what Blockchain is and how important it is going to be in the near future. Following which, Mr. Chourasia shed light on the benefits of using Blockchain and how effectively it is being used in the industry by Bitcoin and various other crypto currencies.







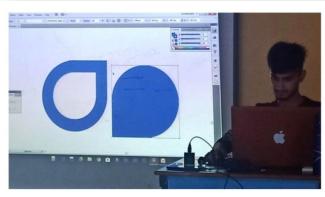
Through this guest lecture, the students from B.Tech and B.C.A program got an opportunity to get a head start in Blockchain, which is an emerging technology in the field of Cyber Security and Cyber Law. Before this, the guest lecture began with welcome address by the Head of the JLU-SOET, Dr. Dileep Kumar Singh. He has introduced and welcomed the resource person to deliver the lecture.





School of Engineering & Technology 2019-2020

## A WORKSHOP ON "LOGO DESIGN"











With the encouraging guidance of Head JLU- School of Engineering & Technology Dr. Dileep Kumar Singh, JLU-School of Engineering & Technology conducted a intra school one day workshop based on LOGO MAKING on August 8, 2019 for the students of B.Tech & BCA. Under the mentorship of Mr. Rajesh Sen Assistant Professor & Program Leader BCA with the active coordination of JLU-SOET students Mr. Vibhu Mishra, Mr. Yash Soni and Mr. Mayank Nebhwani. It was a great learning experience for all the students and will help them in their future endeavours.







## A WORKSHOP ON PYTHON BY FACEBOOK DEVCIRCLE

A Session on Python was organised by Facebook DevCircles at JLU-School of Engineering & Technology on August 22,2019. Mr. Abhishek Yagnik & Mr. Sameer Khan from Facebook DevCircles Bhopal Chapter were present to grace this event. The purpose of this session was to provide a hands on training on Python and to select some of our students who took part in Build Day (Kind of workshop) which was held on 24th and 25th August in Bhopal. Finally around nine students from JLU-SOET have been selected for the Build Day event on the basis of their programming skills.











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School of Engineering & Technology 2019-2020

## A WORKSHOP ON "MACHINE LEARNING WITH PYTHON"

At Jagran Lakecity University we always believe in futuristic learning - a learning which has ample of career scope for youngsters. Hence, keeping student centric approach in mind, JLU - School of Engineering & Technology organised a workshop on "Machine learning with Python' in association with Elysium Academy Pvt. Ltd. The resource person in this workshop was Mr. Harish Satya and it was aimed to equip participants with essential skills in machine learning through Python. Students learnt about the basic concepts of the Python Programming language, Python libraries (Script, Sickest-Learn, Tensor Flow, Numpy, Pandas), Machine Learning Techniques Basic etc. During the ongoing session, Hon'ble Vice Chancellor Prof. (Dr.) Anoop Swarup, Hon'ble Pro Vice Chancellor Prof. (Dr.) M K Srivastava & Dean Students' Welfare Dr. Yogendra Shrivastava interacted with the participants.













School of Engineering & Technology 2019-2020

#### FRESHERS' PARTY







Freshers' Party based on theme 'Royal' was held on August 30,2019 at the campus of JLU-School of Engineering & Technology to welcome the new batch of B.Tech and B.C.A. The showcased their talent in students artforms such as, Group various dance, Group Singing, Bhangra, Theme Based Act and much more. Ramp Walk, which was the highlight of the event crowned the title of King and Queen. The event was judged by the faculty members of JLU-SOET. On this occasion, Dr. Dileep Singh, Head JLU-SOET addressed the current lot of students and encouraged them to aim high, stay focused and do well in their respective courses for a successful career and future.

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School of Engineering & Technology 2019-2020

#### TEACHERS' DAY CELEBRATION

A joint effort by all the students of JLU-SOET was made to celebrate teachers' day on 5th September 2019. The event started by 11:20 am IST in open area of SOET. The students from all the batches contributed in this celebration. The venue became over flowed with pupil who wanted to celebrate teachers' day with respect and love for their gurus (teachers). Once again it was one of the very successful events organized by all the students of SOET.

A team of students took the whole responsibility of distributing cards to the faculty members. They started preparing the cards a week before the day and then gave one card each to the Teaching and Non Teaching staff of the college. Various small games were organized for all faculty members and snacks were arranged by the students. The efforts of the students were appreciated by all the teachers.











School of Engineering & Technology 2019-2020

### VISHWAKARMA POOJAN

JLU-School of Engineering & Technology (SoET) celebrated September 17th as Vishwakarma Puja to pay obeisance to Lord Vishwakarma; regarded as the god of architecture and engineering. It was a resolution time for students and faculty to dedicate themselves to the cause of advancement of technology and gain divine inspiration for creating novel products. This ritual were performed within the workshop with special prayers, havan and distribution of sweets. Occasion was attended by Dr. Dileep Kumar Singh, All Program leaders, all faculty members, staff and students of the SoET







School of Engineering & Technology 2019-2020

## IGNITING MIND LECTURE ON "CHANGING LIVES THROUGH RESEARCH AND INNOVATION"

We should always strive to work for the people of our nation, India and for its progress in the field of Science and Technology. We should innovate and invent according to the problems and situations that the rural and urban people face in their daily lives. These words were said by Mr. Jawwad Patel in the igniting mind lecture series titled "Changing Lives through Research and Innovation" organized by JLU-SOET on September 19, 2019. Mr. Patel also told about some of his inventions so far, i.e. Dewdrop, Epidermus, Agritech, Solar car, IoT, Non-Invasive Glucose-meter etc. Jawwad Patel is an Indian Inventor, Scientist and Social Innovator; He is the recipient of National Award Excellence in Research and Innovation from Government of India – The Highest Civilian Award for Youth in India and The Diana Award for Social Innovations from Government of United Kingdom. To grace this event; Hon'ble Vice Chancellor Prof. (Dr.) Anoop Swarup, Dean & Registrar Prof. (Dr.) Vivek Khare, Dean & Director JLBS Prof. (Dr.) Nilesh Khare, Head, JLU-SOET Dr. Dileep Kumar Singh were present.







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School of Engineering & Technology 2019-2020

#### CONTRIBUTION IN DONATION CAMP

JLU Social Volunteering club brought an opportunity to be a part of the donation drive under Mission 5 million by Robin Hood Army. On the occasion of the Independence Day, Robin Hood Army was out on 11th August to distribute food to the ones in need. Breaking its record to served 2 million citizens in 2018, RHA became ready to win the hunger battle with the weapon called food by serving approx 5 million citizens. JLU- School of Engineering and Technology also joined hands with RHA on the occasion of Independence Day in the fight for freedom from hunger. The target for Bhopal and nearby area was 35000+ people. Faculty Members from SOET along with students have contributed in the form of food, grain etc. in this campaign. The event was supported by JLU- Students Service Cell. After Contribution of Food, Grain etc., SOET Faculty Members felt immense pleasure and lucky to get this wonderful opportunity for helping out poor people. All appreciated this step of social service.







School of Engineering & Technology 2019-2020

## **EDUCATIONAL VISIT TO VIGYAN MELA**

First year students of JLU-School of Engineering & Technology visited the eighth Vigyan Mela which was held at BHEL Dussehra ground, Bhopal from September 13 to 16, 2019. It was organized under the joint aegis of CSIR-AMPRI, Vigyan Prasar, AICTE & Vigyan Bharti.

In this fair, our students visited more than 100 stall by government and non government departments. The major attractions of the fair were progress in the modern science and technology beside art works of bamboo, clay craft and metal science. Moreover, special pavilion displaying innovations and pavilion focusing on environment awareness also attracted the students. Ministry of Earth Sciences, ISRO, DRDO, BHEL, Coal India ltd, BrahMos, Tata, NPCII and NTPC besides several other organizations were participated in this Vigyan Mela. Students were seen impressed after getting details from different science model and said that as they did not know much about latest scientific development but after visiting Vigyan Mela they are feeling proud over our scientists. Faculties of the SoET, Dr. Shweta Singh and Mr. Rajesh Sen accompanied the students."















## INDUSTRIAL VISIT AT ITSC PVT. LTD

JLU-SOET organized an Industrial Visit to "ITSC Pvt. Ltd. Bhopal" for year students of B.Tech and BCA on November 15, 2019. The introduced to software development, enterprise based students were solutions, facility management services and mobile app development. ITSC consultancy services Govt. departments provides to development, implementation, modification, modernization & growth of agriculture centric. The experts in ITSC also motivated students, how to stand with current Technology Challenges. The students appreciated the learning and environment at ITSC.









## INDUSTRIAL VISIT AT CIS PVT. LTD., INDORE



An industrial visit was planned and scheduled on 21 March, 2020 at Cyber Infrastructure (P) Limited, (CIS) Indore for the students of B.Tech. and B.C.A. Cyber Infrastructure was established with the aim to help customers succeed through our high IT skills, and to bring in new employment opportunities in India and aid in country's social development. Cyber Infrastructure continues to expand its array of services and technology portfolio to capture new markets and domains. Cyber Infrastructure undergoes major expansions in terms of infrastructure, team size, and global reach.

This visit was well approved by CIS authority and JLU management. The purpose of the visit was to provide students with information about the internal functioning of the company. This journey would help him to correlate his theoretical concepts with practical knowledge. But due to the Novel CoronaVirus (COVID 19) pandemic, the visit has been postponed according to the guidelines received from the UGC.







#### SAWCHH BHOPAL OATH TAKING CEREMONY

A special assembly was organized to declare and adopt Swatch Bharat campaign. The dHead, JLU-SOET Dr. Dileep Kumar Singh along with all faculty member and student took an oath to maintain cleanliness all around and achieve the objective of attaining a clean country and a clean world. SWACHH BHARAT, SWACHH BHOPAL AND SWASTHA SHIKSHA is a mission to keep this beautiful city clean and green. The golden words for pledge are: "I take this pledge that I will remain committed towards cleanliness and devote time for this., I will devote 100 hours per year, that is two hours per week, to voluntarily work for cleanliness., I will neither litter not let others litter.

I will initiate the quest for cleanliness with myself, my family, my locality, my village and my work place., I believe that the countries of the world that appear clean are so because their citizens don't indulge in littering nor do they allow it to happen".









# COLLABORATIONS, INTERNATIONAL PROJECT & INITIATIVES (2019-20)



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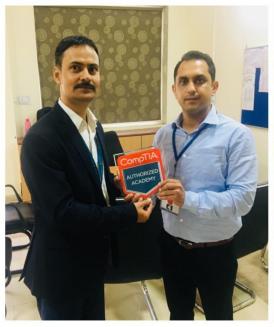
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#### MOU SIGNED WITH COMPTIA

By all indications, the coming years will be fruitful for IT managers and professionals, especially for those with skills related to cloud computing and cyber security. To build these skills, Jagran Lakecity University (JLU) partnered with Computing Technology Industry Association (CompTIA).

The aim of this partnership is to support and work with JLU-School of Engineering & Technology to train and certify students on CompTIA certification programs, especially in cloud computing and cyber security. CompTIA is a US-based non-profit trade association, issuing professional certifications for the information technology (IT) industry. It is considered one of the IT industry's top trade associations. We look forward to achieve new milestone together.

To grace this important collaboration; Hon'ble Vice Chancellor Prof. (Dr.) Anoop Swarup, Registrar Prof. (Dr.) Vivek Khare, Director Advancement & External Affairs'& Director JSJC Prof. Diwakar Shukla and Head JLU-School of Engineering & Technology Dr. Dileep Kumar Singh were present for MoU signing ceremony at JLU Campus.





COLLABORATIONS 26





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School of Engineering & Technology 2019-2020

#### TUNING INDIA PROJECT

[The Fourth General Meeting]

Tuning India Project is for capacity building in higher education, funded by the European Union Erasmus + Program. The project is aimed to achieve the following specific objectives:

☐ To apply the Tuning methodology in Indian universities in four subject are — Law, ICT, Medicine and Teacher Education.	as
☐ To develop Tuning Meta-Profiles in four subject areas.	
☐ To develop, implement, monitor and improve degree programmes.	
☐ To promote sub regional and international cooperation between India and Euniversities.	U

Tuning India brings together 15 Indian universities, along with 5 EU partners, to try and make this dream come true. Academics, students, graduates, employers and other relevant stakeholders from the five sub-regions of the country will be involved in the process of (re)designing degrees to make them learner-centered, comparable and compatible, as well as relevant for the society and the labor market. Preserving the rich diversity of education has been paramount in the tuning project while considering the main challenges for internationalization of higher education. Both the design and the implementation of the innovative degree programmes are to happen during the project time.

It is worth mentioning that Jagran lakecity University is the only University from Central India in this project, participating in 3 academic disciplines viz. Law, ICT and Teacher education. JLU School of Engineering & Technology has been identified as implementing institutions for the pilot programme in the area of ICT. Tuning India 4th General Meeting was held in Kolkata from 2-7 December 2019 in which Dr Dileep Kumar Singh (Head-SOET) and Dr Prashant Kumar Shukla have participated in the meeting.







## TUNING INDIA PROJECT [The Fourth General Meeting] Cont..

The Fourth General Meeting mainly aimed at the following themes:

#### **Academic aims:**

- ❖ Design of degree programmes and their implementation
- Planification of Students' Workload

## **Management aims:**

- \* Revision of the project progress and intermediate report
- ❖ Planification of the next















## JLU-SOET AS CENTER FOR SWAYAM NPTELLOCAL CHAPTER



## Congrats!

Your college JAGRAN LAKECITY
UNIVERSITY - SCHOOL OF
ENGINEERING & TECHNOLOGY
has been established as SWAYAM
- NPTEL Local Chapter.

We would like to inform you that your college details have been uploaded on our Local chapter website.

 Local Chapter features available in Onlinecourses portal

Swayam Central is India's largest massive open online course (MOOC) program a initiative by Government of India. Courses available in swayam portal are for free of cost to all the students who are interested in online learning. This courses comes with a nominal fees if learners are interested to get certified in respective courses. Swayam certificate exam eligibility will be available in all the courses. All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to any learner. More than 1,000 specially chosen faculty and teachers from across the country have participated in preparing these courses.

JLU School of Engineering and Technology is now a Local Chapter of SWAYAM – NPTEL approved by NPTEL office IIT Madras. Mr. Rajesh Sen, Assistant Professor & Program Leader BCA, JLU-SOET has given the responsibility of SPOC for the same. With this our students and faculties can be benefited with the AICTE approved certifications and FDPs. As per the UGC norms, there is a provision for credit transfer from the SWAYAM certification and the activities can be easily monitored via SWAYAM local chapter portal itself.

INITIATIVES 29

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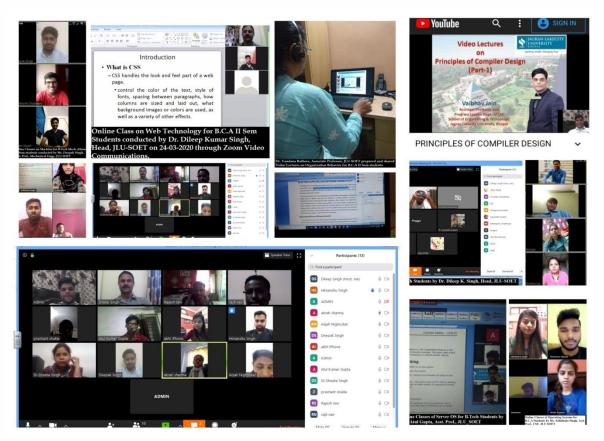


School of Engineering & Technology 2019-2020

## ONLINE SESSIONS FOR THE STUDENTS DURING LOCKDOWN

In the midst of the novel corona virus (COVID-19) outbreak, JLU-School of Engineering & Technology has turned to remote learning to keep students engaged and continue learning at home while the entire country remains under a shelter-in-place order until at least a few weeks. Faculties were granted training from university for professional development to successfully navigate online instructions to students. Web-ex, Zoom, Google Classroom and other platforms are being used to deliver the online sessions along with study materials for the students.

Moving all courses with face-to-face components to completely online environments is new territory for students, faculty, and institutions. The faculty members of JLU-SOET are solving the students' doubts and problems through these phone calls, messages, whats app, messenger etc. We hope that these steps adopted by JLU will surely lead towards the social distancing which is must to break down the chain of COVID-19.



INITIATIVES 30







# RESEARCH ACTIVITIES (2019-20)







## **SUMMARIZED RESEARCH REPORT FOR 2019-20**

**26** Paper published by Faculty Members

20 Papers published in SCI/Scopus Indexed/ UGC Care Journals

03 Papers published in SCI/Scopus indexed Conferences

02 Book Chapters published by Faculty Members

**02** Book published by Faculty Members

**04** Patents filed by Faculty Members

01 Ongoing Govt.
Agency Funded
Project +
01 University
Funded Project

01 Paper published by UG Students







## **BOOK PUBLISHED**

S. N	AUTHOR NAME	TITLE OF THE BOOK	PUBLISHER	MONTH/ YEAR	ISBN NO.
1	Ms. Sweta Gupta	Book published on "A Practical Approach: Working With Windows: Server Operating System"	Publisher: LAP LAMBERT Academic Publishing (2 March 2020)	Mar-20	ISBN- 10: 62006 55790
2	Total quality management Ms.Akrati in institution of higher Sharma education (Translated book in hindi)		Gyan Bhaarti Publication, New Delhi	Mar-20	ISBN : 978-93- 85538-55- 1

## **BOOK CHAPTERS**

S. N	AUTHO R NAME	BOOK/ CHAPTER TITLE	PUBLISHER	MONTH/ YEAR	ISBN NO.
1	Mr. Rajit Nair	Chapter entitled "An Application of Blockchain in Stock Market" in book titled "Transforming Businesses With Bitcoin Mining and Blockchain Applications"	IGI Global, 2020	2020	doi:10.401 8/978-1- 7998-0186- 3.ch006, ISBN13: 978179980 1863.
2	Mr. Rajit Nair	Chapter entitled "Healthcare Information Exchange Through Blockchain-Based Approaches" in book titled "Transforming Businesses With Bitcoin Mining and Blockchain Applications"	IGI Global, 2020	2020	doi:10.401 8/978-1- 7998- 0186- 3.ch014, ISBN13:







## PAPERS PUBLISHED

S.N O	Author Name	Paper Title	Journal Name	Month/ Year	ISBN/ISS N NO.	Indexing
1	Dr. Dileep Kumar Singh	Intrusion response prioritization based on fuzzy ELECTRE multiple criteria decision making technique	Journal of Information Security and Applications	2019	2214-2126	SCI/Scopus Indexed
2	Dr. Dileep Kumar Singh	Hand Gesture Recognition system for physically challenged people using IOT.	International Conference onAdvanced Computing and Communication Systems (ICACCS)	2020	2575-7288	Scopus Indexed
3	Dr. Vandana Rathore	Thin-films for photovoltaic applications: a review of materials and preparation methods	Jagran International Journal on Contemprory Research (JIJCR)	2019	ISSN 2320-9372	International Journal
4	Dr. Vandana Rathore	Synthesis and Characterization of Structural Properties of Sn1- xMnxO2Thin Films Prepared by PLD (Web of Science/SCI Indexed)	AIP Conference Proceedings 2115, 030279 (2019); https://doi.org/10.10 63/1.5113118	2019	978-0- 7354- 1851-6	SCI Indexed Conference
5	Dr. Vandana Rathore	Structural and Photo- Conducting Properties of Cd1-xAlxS Thin Films Prepared by Spray Pyroliysis (Web of Science/SCI Indexed)	AIP Conference Proceedings 2115, 030279 (2019); https://doi.org/10.10 63/1.5113118	2019	978-0- 7354- 1830-61	SCI Indexed Conference
6	Dr. Vandana Rathore	Study of Solid Waste Management in Urban Areas:An Insight on Challenges, Prospects and Constraints	International Conference on "Advance Technologies In Renewable Energy For Future Sustainability"	2019	2322- 5467	International Conference







## PAPERS PUBLISHED

	TALERSTODLISHED					
S.N O	Author Name	Paper Title	Journal Name	Mon th/Y ear	ISBN /ISSN NO.	Indexing
7	Dr. Vandana Rathore	A Comprehensive Review: SnO2 for Photovoltaic and Gas Sensor Applications	Applied Innovative Research, Journal Published by CSIR- National Institute of Science Communication and Information Resources (CSIR-NISCAIR), Govt. of India, New Delhi	Jan- 20	ISSN: 2581-8198 (Online)	Indexed Journal (CSIR- NISCAIR), Govt. of India, New Delhi
8	Dr. Shweta Singh	Mathematical Top and bottom Approach to Solve Transportation Problems with the Upper and lower bound Total Opportunity Cost Method (Page no. 3807-3815)	International Journal of Management, Technology and Engineering Volume IX, Issue III	<b>M</b> ar- 19	2249-7455	Indexed Journal
9	Dr. Shweta Singh	Optimization Techniques: Cost Opportunity Matrix for Solving Assignment Problem (Page no.368- 378)	International Journal of Management, Technology and Engineering	Apr- 19	2249-7455	Indexed Journal
10	Dr Prashant Kumar Shukla	Review of Different Video Compression Methods Based on Fractal Transform	International Journal of Scientific & Technology Research (IJSTR), Vol-8, Issue-11	Nov- 19	ISSN 2277-8616	Scopus Indexed
11	Dr Prashant Kumar Shukla	Invisible Medical Image Watermarking using Edge Detection and Discrete Wavelet Transform Coefficients (Page 5074- 5080)	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Nov- 19	ISSN: 2278-3075	Scopus Indexed
12	Dr Prashant Kumar Shukla	Review of Video Compression Techniques Based on Fractal Transform Function and Swarm Intelligence	International Journal of Modern Physics B, SINGAPORE, VOL. 34, NO. 08	Mar- 20	ISSN (print): 0217-9792   ISSN (online): 1793-6578	SCI and Scopus Indexed journal







## PAPERS PUBLISHED

	FAFERS FUDLISHED						
S.N O	Author Name	Paper Title	Journal Name	Mont h/Yea r	ISBN/ISS N NO.	Indexing	
13	Dr Prashant Kumar Shukla	Multi Agent Based Intrusion Detection System using Artificial Immune System for Distributed Network	ACM Transactions on Multimedia Computing Communications and Applications, NEW YORK, USA	Jan-20	1551-6857 / 1551- 6865	SCI and Scopus Indexed journal	
14	Dr Prashant Kumar Shukla	Image Forgery Detection Using Singular Value Decomposition with Some Attacks	National Academy Science Letters, SPRINGER	Feb- 20	ISSN: 0250- 541X (Print) 2250-1754 (Online)	SCI and Scopus Indexed journal	
15	Mr. Rajit Nair	An Efficient Approach for Sentiment Analysis Using Regression Analysis Technique	International Journal of Computer Sciences and Engineering	2019	2347-2693	Indexed Journal	
16	Mr. Rajit Nair	Classification of images through Machine Learning Algorithms	International Journal of Management, Technology And Engineering	2019	2249-7455	Indexed Journal	
17	Mr. Rajit Nair	Feature Selection Method To Improve The Accuracy of Classification Algorithm (pp.124-127)	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	April 2019	2278-3075	Scopus Indexed	
18	Mr. Rajit Nair	Improved Performance of Machine Learning Algorithms via Ensemble Learning Methods of Sentiment Analysis (110- 116)	International Journal on Emerging Technologies	Jul-19	0975-8364	SCOPUS and UGC-CARE List (No. 212)	







#### PAPERS PUBLISHED

S.NO	Author Name	Paper Title	Journal Name	Month/Ye ar	ISBN/ISSN NO.	Indexing
19	Mr. Rajit Nair	Genes Expression Classification using Improved Deep Learning Method (pp 64-68)	International Journal on Emerging Technologies 10(3)	Sep-19	ISSN No. (Print): 0975- 8364 ISSN No. (Online): 2249-3255	Scopus Indexed
20	Mr. Rajit Nair	Genes expression classification through Histone Modification using Temporal Neural Network	Recent Advances in Computer Science and Communications (2020) 13: 1	August, 2019	Print ISSN- 2666-2558, Online ISSN- 2666-2566	Scopus Indexed
21	Mr. Rajit Nair	Hand Gesture Recognition system for physically challenged people using IOT.	International Conference onAdvanced Computing and Communication Systems (ICACCS)	2020	2575-7288	Scopus Indexed
22	Ms. Anjali Nighoskar	MPPT TECHNIQUES USED TO ENHANCE THE EFFICIENCY OF THE SOLAR PLANT	IJRAR (International Journal of research and analytical reviews)	Feb-19	E-ISSN 2348- 1269, P- ISSN 2349-5138	Indexed Journal
23	Ms. Anjali Nighoskar	Renewable Energy for Sustainable Rural Development and Challenges	I JRAR (International Journal of research and analytical reviews)	Feb-19	E-ISSN 2348- 1269, P- ISSN, 2349-5138	Indexed Journal
24	Ms. Anjali Nighoskar	Economic Load dispatch With Valve Loading Effects Optimize by Bbmo	International Journal of Innovative Technology and Exploring Engineering	Feb-19	ISSN-2278- 3075	Scopus Indexed







#### PAPERS PUBLISHED

S.NO	Author Name	Paper Title	Journal Name	Month/Y ear	ISBN/ISSN NO.	Indexing
23	Mr. Vaibhav Jain	An Efficient Approach for Sentiment Analysis Using Regression Analysis Technique (Page no. 161-165)	International Journal of Computer Sciences and Engineering	Mar- 19	E-ISSN: 2347- 2693 Volume-7 , Issue-3	Indexed Journal
24	Ms. Sweta Gupta	Research paper entitled 'A Data Mining Technique for Tourist Destination Brand Image Building' (Page No.: 4617- 4622)	International Journal of Recent Technology and Engineering (IJRTE)	Mar- 20	ISSN: 2277- 3878 (Online)	Scopus Indexed
25	Mr. Deepak Singh	Performance Analysis of Night Sky Radiant Cooling System	IJSRR	Mar- 19	2279-0543	Indexed Journal
26	Ms. Akrati Sharma & Mr. Rajesh sen	Optimization of Cost: Storage over Cloud VS on Premise Storage	9th International Conference on Communication Systems and Network Technologies 2020	2020		Indexed by scopus,EI compendex, ISI Proceedings







#### **PATENTS**

S.NO	FACULTY NAME	TITLE WITH PATENT APPLICATION NO	DATE OF PUBLICATION
1	Dr. Dileep Kumar Singh	Live virtual machine task using multi issue mugger in cloud computing (patent no. 202021000766)	2019-20
2	Dr. Dileep Kumar Singh	A smart algorithm for source allocation and self-management of wireless IOT gateway (patnt no. 202021004742)	2019-20
3	Dr. Prashant Kumar Shukla	"System Of Heat Sink Motor Control For Consumer Electronic Devices" (Patent Application No. 201941029525)	8/9/2019
4	Dr. Prashant Kumar Shukla	"System Of Smart Grid Network For Electricity Supply In Smart Cities Using Big Data Computing" (Patent Application No. 201911031482)	8/9/2019







#### UNIVERSITY FUNDED PROJECTS

Our students from JLU-School of Engineering and Technology participated in the first round of SIEP E-Bike Challenge organised by ISIE INDIA; Hero Electric on 27th Feb - 1st Mar, 2020 at Vijayawada, Andhra Pradesh. Our Team Velociraptor comprising of 12 students from B.Tech Mechanical & CSE and BCA program took part in this competition and qualified for the final round of competition which will be held in the second Week of June 2020 at Jaipur. In this event, students from all over India participate, retrofit and bring innovation in their E- Bike. The team was praised by the jury for designing and assembling their own lithium ion rechargeable battery. The team also won the spirit award in this round.











School of Engineering & Technology 2019-2020

#### ONGOING GOVERNMENT FUNDED PROJECTS

Project Title: To study valence band structure, magnetic and optical properties of TM doped TiO2 and SnO2 thin films"

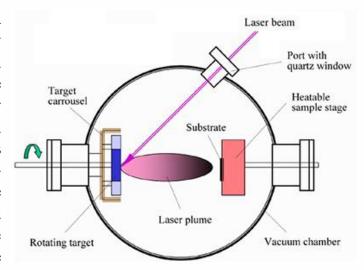
**Principal Investigator:** Dr. Vandana Rathore, Associate Professor, JLU-SOET **Funding Agency:** UGC-DAE Consortium for Scientific Research, An Autonomous Institution of University Grants Commission, New Delhi, Govt. of India. Indore.

Amount: 7.5 Lakhs, Duration: 3 years

In Collaboration with UGC-DAE CSR, Indore&Indus-1 Beam Line-2, Raja Ramanna Centre for Advanced Technology (RRCAT), Indore.

Brief Summary and Outcomes: The major applications pure and TM doped SnO2& TiO2 materials which are to be synthesized and characterized in the project are solar cells, gas sensors, transparent electrical heaters for windscreens in the aircraft industry, heat reflectors, protective coatings, and light transparent electrodes. Nanostructures offer better options for rechargeable batteries, for instance, including the ones to be used in the next generation of hybrid cars. Doping of such wide band gap materials with transition metal magnetic impurities influences the electronic structure and produces unique magnetic and magneto-optical properties with unparalleled opportunities in the field of spintronics. With the increasing sophistication of devices based on semiconducting transparent coatings, there has been a need for improved quality and understanding of the basic properties of these films.

The materials will be prepared in the form of thin films by Pulsed laser deposition techniques will and he characterized by AIPES, XPS, XRD, Raman UV-Vis AFM, spectroscopy, spectroscopy, Magnetounderstand the resistance to optical, magnetic, electronic and properties structural of the samples for further advance applications.









# FACULTY ACHIEVEMENTS (2019-20)







#### DR. DILEEP KUMAR SINGH (HEAD, JLU-SOET)

#### Participations in Workshops/Training/Mentoring/FDPs/Courses etc

- Successfully completed the course on "Programming for everybody (Getting Started with Python)" and certified on 29<sup>th</sup> April 2020, by University of Michigan offered through Coursera.
- ➤ Successfully completed the course on "Python Data Structure" and certified on 2<sup>nd</sup>May 2020, by University of Michigan offered through Coursera.



- ➤ Participated in one week workshop on "Analytics of Things and Big Data", sponsored by ATAL Programme (AICTE) from 23rd to 27th September 2019, organized by MANIT Bhopal.
- ➤ One of the students' project under his mentorship participated in "Anveshan Central zone students research convention" on 6-7 February 2020, organized by Jagran Lakecity University with Association of Indian Universities, New Delhi. This project secured first position in engineering stream.
- ➤ Participated in the international expert lecture on "Data Analytics & Machine Learning Techniques" on 16 Oct. 2019, under TEQIP-III at RGPV Bhopal (MP)

#### **Tuning India Project**

➤ Participated in 4<sup>th</sup> General meet of Tuning India Project from 3<sup>rd</sup> to 7<sup>th</sup> December 2019 in Kolkata. Represented the ICT group from School of Engineering & Technology, Jagran Lakecity University Bhopal.







## DR. DILEEP KUMAR SINGH (HEAD, JLU-SOET)

#### **Patents:**

- ➤ Published a Patent titled as "Live virtual machine task using multi issue mugger in cloud computing" with patent number 202021000766.
- ➤ Published a Patent titled as "A smart algorithm for source allocation and self-management of wireless IOT gateway" with patent number 202021004742.

#### **Publications:**

- ➤ Publisjed research paper titled "Intrusion response prioritization based on fuzzy ELECTRE multiple criteria decision making technique"got published in the SCI and SCOPUS Indexed journal "Journal of Information Security and Applications", vol. 48, ISSN: 2214-2126, DOI: https://doi.org/10.1016/j.jisa.2019.102359,October 2019.
- ➤ Published research paper titled "Hand Gesture Recognition system for physically challenged people using IoT" got published in IEEE xplore under the IEEE 2020 International Conference on Advanced Computing and Communication Systems (ICACCS)", ISBN: 978-1-7281-5197-7, DOI: 10.1109/ICACCS48705.2020.9074226,6th-7th March 2020.
- ➤ Received the certificate of presentation for presenting the research paper titled "Hand Gesture Recognition System for Physically Challenged People Using IoT" in the IEEE International Conference on "Advanced Computing & Communication Systems ICACCS 2020" on 6<sup>th</sup> 7<sup>th</sup> March 2020 at Sri Eshwar College of Engineering, Coimbatore, TamilNadu, India.



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School of Engineering & Technology 2019-2020

## DR. VANDANA RATHORE (Associate Professor, JLU-SOET)

- Completed a UGC-HRDC Refresher Course at DAVV Indore form 29th August, 2019 to 11th September, 2019. The refresher course was based on Nano-Physics and Electronics Core.
- Attended a five days STTP on Recent Advancement in Chemical Engineering and Material Sciences (25th -29th December,2019) organized by, Dept. of Chemical Engineering, MANIT, Bhopal



#### **Publications**

- ➤ Paper titled "Thin-films for photovoltaic applications: a review of materials and preparation methods" published in an international journal.
- ➤ Paper titled "Synthesis and Characterization of Structural Properties of Sn<sub>1-x</sub>Mn<sub>x</sub>O<sub>2</sub>Thin Films Prepared by PLD (Web of Science/SCI Indexed) "published in SCI indexed conference.
- ➤ Paper titled "Structural and Photo-Conducting Properties of Cd<sub>1-x</sub>Al<sub>x</sub>S Thin Films Prepared by Spray Pyroliysis (Web of Science/SCI Indexed) published in SCI indexed conference.
- ➤ Paper titled "Study of Solid Waste Management in Urban Areas: An Insight on Challenges, Prospects and Constraints" published in an international journal.
- ➤ Paper titled "A Comprehensive Review: SnO2 for Photovoltaic and Gas Sensor Applications "published in international journal.





School of Engineering & Technology 2019-2020

## DR. SHWETA SINGH (Assistant Professor, JLU-SOET)

- ➤ Invited as the Jury Member of Poster Presentation event in International Seminar on "SMART CITIES: HEALTH CARE & GREEN ENERGY" organized by Dept. of Basic Sciences, Oriental University Indore, in association with IETE Sub-center Indore on 30-31st July 2019.
- ➤ Invited as judge in Inter-house English Skit at DPS KOLAR on 15<sup>th</sup> July 2019.
- Attended four Weeks (13/05/2019 to 7/06/2019) Short term training Programme named as Faculty Induction Programme (FIP) from National Institute of Technical Teachers' Training and Research, Bhopal.
- Presented paper in the International Conference on "Engineering, Mathematical and Computational Intelligence' organized by JEC, Jabalpur in Walchand College of Engineering, Sangli from 21-23 Dec., 2019. The paper was titled as "A transportation Model: Solving with z-p method and the U-L bound technique for TOC".

#### **Publications**

- ➤ Paper titled "Optimization Techniques: Cost Opportunity Matrix for Solving Assignment Problem" published in indexed journal
- Paper titled "Mathematical Top and bottom Approach to Solve Transportation Problems with the Upper and lower bound Total Opportunity Cost Method" published in indexed journal.











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School of Engineering & Technology 2019-2020

## DR. PRASHANT KUMAR SHUKLA (Assistant Professor, JLU-SOET)

Chaired a session in the International Conference on Big data, Cloud Computing and Intelligent System sponsored by the All India Council for Technical Education (AICTE) and organized by LNCT, Bhopal on 18th-19th October, 2019.



- ➤ Published a Paper titled "Review of Different Video Compression Methods Based on Fractal Transform" is Scopus indexed journal.
- ➤ Published a Paper titled "Invisible Medical Image Watermarking using Edge Detection and Discrete Wavelet Transform Coefficients" in Scopus indexed .
- ➤ Published a Paper titled "Review of Video Compression Techniques Based on Fractal Transform Function and Swarm Intelligence" published in SCI journal.
- ➤ Published a Paper titled "Multi Agent Based Intrusion Detection System using Artificial Immune System for Distributed Network" published in SCI journal.
- ➤ Published a Paper titled "Image Forgery Detection Using Singular Value Decomposition with Some Attacks" published in SCI indexed journal.
- ➤ Participated in a Five days FDP on Database and Algorithms to be held from 26th to 30th of December, 2019 at SGSITS, Indore.

#### **Patents:**

- ➤ Published a Patent titled as "System of Smart Grid Network For Electricity Supply In Smart Cities Using Big Data Computing" with patent number 201911031482.
- ➤ Published a Patent titled as "System of Heat Sink Motor Control For Consumer Electronic Devices" with patent number 201941029525.





School of Engineering & Technology 2019-2020

## MR. HIMANSHU SINGH (Assistant Professor, JLU-SOET)

- Advisor in the Designing and Fabrication of an E-Bike to participate in the Hero India E-Bike challenge organized by Imperial Society of Innovative Engineers (ISIE). The team participated in the first round held at Vijayawada and qualified for the final round.
- Mentored a group of students participated in Central zone level student convention: "Anveshan", organized by Association of Indian University at JLU, Bhopal.
- He has successfully completed successfully completed the E-Learning Program titled "Capability Development" on Heat Treatment of Steel organized by Tata Steel, Jamshedpur.
- ➤ He has successfully completed successfully completed the E-Learning Program titled "Capability Development" on Heat Treatment of Steel organized by Tata Steel, Jamshedpur.











School of Engineering & Technology 2019-2020

## MR. VAIBHAV JAIN (Assistant Professor, JLU-SOET)

- ➤ Chaired a session in the International Conference on Big data, Cloud Computing and Intelligent System sponsored by the All India Council for Technical Education (AICTE) and organized by LNCT, Bhopal on 18th-19th October, 2019.
- ➤ Participated in a Five Days FDP on Database and algorithms held from 26<sup>th</sup> to 30th of December, 2019 at SGSITS, Indore. The FDP was organised in association of IIITDM Jabalpur.
- Attended a Three Days Workshop on Data Security and IPR at RGPV, Bhopal from 29-05-2019 to 31-05-2019.
- ➤ Attended a Five days FACULTY DEVELOPMENT PROGRAM on BLOCKCHAIN at RGPV Bhopal on 02-04-2019 to 06-04-2019.





#### **PUBLICATIONS**

- ➤ Paper titled "An Efficient Approach for Sentiment Analysis Using Regression Analysis Technique" published in International Journal of Computer Sciences and Engineering listed in UGC Care.
- ➤ Paper titled "Enhancing the performance measure of sentiment analysis through deep learning approach" *accepted* in Inter Journal of Computing and Digital Systems'20 indexed in Scopus.

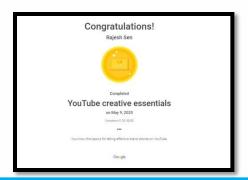




School of Engineering & Technology 2019-2020

## MR. RAJESH SEN (Assistant Professor, JLU-SOET)

- ➤ Attended a workshop at remote center of IIT Bombay on python.
- ➤ Received online certification on Cloud Computing by NPTEL.
- Attended R language workshop organized at remote centre of IIT Bombay.
- ➤ Received a Latex certification from IIT Bombay.
- Published a Paper titled "Optimization of Cost: Storage over Cloud VS on Premise Storage" in SCI indexed conference.
- ➤ Attended R language workshop organized by RNTU.
- Cleared the certification exam by Google and Completed the course on YouTube essentials.















## MS. SWETA GUPTA (Assistant Professor, JLU-SOET)

- ➤ Participated in "Short Term Training Programme" on "Internet of Things: Education Canvas" held from 2nd to 7th of February 2020.
- ➤ Participated in a five days Faculty Development Program on Database and algorithm held from 26<sup>th</sup> to 30th of December, 2019.



- ➤ Published a Paper titled Research paper entitled 'A Data Mining Technique for Tourist Destination Brand Image Building' is scopus indexed.
- ➤ Her Book on "A Practical Approach: Working With Windows: Server Operating System" is published by LAP LAMBERT Academic Publishing .

## MR. ATUL KUMAR GUPTA (Assistant Professor, JLU-SOET)

- ➤ Delivered an expert lecture on "Java based project application development" was designed as 13+hours of classroom and hands-on training, event. This event was held in Mittal College, Bhopal.
- ➤ Attended one week FDP program held in MANIT Bhopal on IOT/Machine Learning/AI/Big Data Analytics".



➤ Completed four week online training from Coursera and got certificate of completion from University of Michigan.







## MR. RAJIT NAIR (Assistant Professor, JLU-SOET)

- ➤ Attended this one week FDP program held in MANIT Bhopal on **Internet of Things/Machine Learning/Artificial Intelligence/Big Data Analytics**".
- Published a Paper titled "An Efficient Approach for Sentiment Analysis Using Regression Analysis Technique" published in indexed journal.
- ➤ Published a Paper titled Classification of images through Machine Learning Algorithms" published in indexed journal.
- ➤ Published a Paper titled "Feature Selection Method To Improve The Accuracy of Classification Algorithm " is scopus indexed journal.



- ➤ Published a Paper titled "Improved Performance of Machine Learning Algorithms via Ensemble Learning Methods of Sentiment Analysis" is scopus indexed journal.
- ➤ Published a Paper "Genes Expression Classification using Improved Deep Learning Method" is scopus indexed journal.
- ➤ Paper titled "Genes expression classification through Histone Modification using Temporal Neural Network" is scopus indexed journal.
- Published two book chapters on Block chain technique, in IGI Global 2020.
- ▶ Pubmished a paper "Hand Gesture Recognition system for physically challenged people using IoT" in IEEE Explorer.



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School of Engineering & Technology 2019-2020

## MS. AKRATI SHARMA (Assistant Professor, JLU-SOET)

- ➤Invited as a Resource Person to deliver an Expert Talk in 10 Days In- Service Course for PGT Computer Science Teachers organised by Kendriya Vidyalaya No.1, Bhopal on 24th December 2019.
- ➤Invited as a resource person to deliver an Expert Talk on the topic INTRODUCTION TO SOFTWARE ENGINEERING at Kendriya Vidyalaya, Bairagarh, Bhopal on 04-12-2019.
- ➤ Writing a book transation from english to hindi "Total quality management in institution of higher education"
- ➤ Published a Paper titled "Optimization of Cost: Storage over Cloud VS on Premise Storage " published in SCI indexed international conference.
- Attended R language workshop organized by Remote Center of IIT Bombay.





➤ Attended a TEQIP-III Sponsored 5 Days Workshop cum FDP on Data Sciences from May 04-08, 2020 jointly organized by KNIT Sultanpur and MNNIT Allahabad.



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School of Engineering & Technology 2019-2020

## MS. ANJALI NIGHOSKAR (Assistant Professor, JLU-SOET)

- ➤ Published a Paper titled "Mppt techniques used to enhance the efficiency of the solar plant" is published in indexed journal.
- ➤ Published a Paper titled "Renewable Energy for Sustainable Rural Development and Challenges" is published in indexed journal.
- ➤ Published a Paper titled "Economic Load dispatch With Valve Loading Effects Optimize by Bbmo" is published in indexed journal.



➤ Presented a peper on "Opimization of Economic Dispatch using PSO with Time varying Acceleration Coefficient" on 28 Feb 2020 in 2 nd IEEE international conference on Data, Engineering and Applications 2020(IDEA-2020) at RGPV, Bhopal.

## MR. DEEPAK SINGH (Assistant Professor, JLU-SOET)

- ➤ Faculty mentor" of a group of students participated in Central zone level Project Competition: "Anveshan", organized by Association of Indian University.
- ➤ Published a Paper titled "Performance Analysis of Night Sky Radiant Cooling System" is published in indexed journal.



## MS. ABHILASHA SINGH (Assistant Professor, JLU-SOET)

- Attended R language workshop organized by Remote Center IIT Bombay.
- Completed a training on "Python Programming for Beginners in Data Science" Organized by Udemy acedemy.



➤ Attended a 5-Days Workshop cum FDP on Data Sciences from May 04-08, 2020 jointly organized by KNIT Sultanpur and MNNIT Allahabad./







# STUDENTS' ACHIEVEMENTS (2019-20)







#### SUMMARIZED STUDENT ACHIEVEMENT REPORT

S.N O	STUDENT NAME	PLACEMENTS/ACHIEVEMENTS/TRAINING
		•Placed in multinational company Genpact, at Bhopal he have been offered the post of Process Associate & Process Developer.
1	Raj Sharma	•He got certified as Red Hat System Administrator by scoring highest marks in all over Bhopal City. He scored 283 while the passing score was 210 in Red Hat Enterprise Linux 8
2	Abhinandan Shukla	•Placed in multinational company Genpact, at Bhopal he have been offered the post of Process Associate & Process Developer.
3	Shubham Rajput	•Placed in multinational company Genpact, at Bhopal he have been offered the post of Process Associate & Process Developer.
4	Rajat Ranjan Patwari	•Placed in multinational company Genpact, at Bhopal he have been offered the post of Process Associate & Process Developer.
5	Rahul Manglani	•He got placed in leading EdTech company Jaro Toppscholars as a Trainee with a package of 12 Lakh/Annum.
6	Nimish Vishnoi	•He got Placed in a leading multinational company Yash Technologies as Trainee Engineer with a package of 6 Lakhs/Annum.
7	Vibhu Mishra, Shantanu Injewar	• Shantanu & Vibhu student of BCA 2 <sup>nd</sup> year went to Egypt for a 45 days internship project through aiesec
8	Nipun Gupta	•Nipun Gupta has successfully completed the training course of Linkedin Learning for Professionals.







S.N O	STUDENT NAME	PLACEMENTS/ACHIEVEMENTS/TRAINING
9	Sourabh Singh	<ul> <li>•He got selected as a senior man Senior National Roll Ball Championship 2019.</li> <li>• He participated in International Rollball Championships 2020 held at Colombo Srilanka from 14-17th, February, 2020. His team won Gold Medal in the event.</li> </ul>
10	Akshat Bahety	<ul> <li>He started his own start up named as PINAKULO, With the tagline-"Reach your potential" Pinakulo is a one of its kind Ed-Tech startup bringing the services of digital marketing,</li> <li>He was invited by Adobe to be a part of the panel discussion on "Creativity for All", an initiative by Adobe for its premier program Adobe Digital Disha. Akshat shared the stage with the VP- Adobe, Mala Sharma.</li> <li>He was selected for the National Round of EO GSEA A Startup competition.</li> </ul>
11	Shrikant Gade	•He participated and secured 4th position in Bug Bounty Contest of Techfest at IIT Bombay
12	Ashu , Sourabh Bakshi, Shivam Yadav	<ul> <li>They participated in Anveshan 2020 - Student Research Convention held at JLU. Their project name is DHWANI ranked 1<sup>st</sup> in the event, Now they will participated in final National level event of Anveshan.</li> <li>These students has published a research paper in IEEE explore conference on the topic"Hand Gesture Recognition system for physically challenged people using IOT."</li> </ul>
13	Siddarth Chatterjee	<ul> <li>He completed 30 days Industrial training in Body shop at CI Hyundai, Bhopal.</li> <li>He completed A1 level German Language Course – beginners from Udemy.</li> <li>He completed Automotive Electrical Diagnosis (beginner) from Udemy.</li> </ul>
14	Mitangshu Chatterjee	•He completed the test which was later inspected by the trainer and was awarded with a certificate of achievement and winner trophy from Elysium Academy



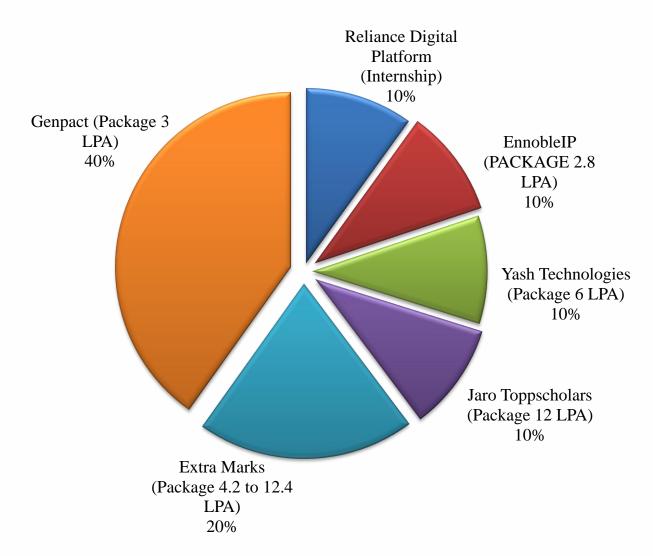




#### SUMMARIZED STUDENTS' PLACEMENT REPORT

➤ Till date 10 offers to 11 eligible B.Tech. CSE Students (90%)

#### **Company-wise Placements 2019-20**





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#### **PLACEMENTS NEWS**

#### RAHUL MANGLANI B.TECH CSE (CTIS) - VIII SEM

At JLU-SOET, we believe that there are no secrets to success. It is the result of preparation, hard work, and learning from failure.

With these lines we are thrilled to share that Rahul Manglani (Id: JLU01168), student of B.Tech (CSE\_CTIS-VII Sem), JLU-SOET got placed in leading EdTech company **Jaro Toppscholars** as a **Trainee** with a package of **12 Lakh/Annum.** He has appeared in close campus placement drive of Jaro Education at JLU, Bhopal on 04-11-2019. After clearing multiple rounds of selection process, he finally achieved this success.

#### NIMISH VISHNOI B.TECH CSE (CTIS) - VIII SEM

Nimish, Student of B.Tech CSE (CTIS) Sem got Placed in leading a multinational Yash company Technologies as Trainee Engineer with a package of 6 Lakhs/Annum. He has appeared in open campus placement drive of Yash Technologies at Bhopal on 07-11-2019. After clearing technical two round rounds. one GD and one managerial round he achieved this success.

We congratulate both on their well-deserved success and best wishes for his next adventure!



BITS & BYTES

School of Engineering & Technology 2019-2020







**RAJ SHARMA**B.Tech CSE (CTIS) VIII



genpact Transformation



ABHINANDAN SHUKLA B.Tech CSE VIII SEM



SHUBHAM
RAJPUT
B.Tech CSE VIII SEM

#### PLACEMENTS NEWS

- > We are thrilled share to that following four students of JLU-School of Engineering & Technology (SOET) got Placed in a leading multinational company Genpact. All the mentioned students appeared in open campus placement drive of Genpact at Bhopal on 18-10-2019. The students have been offered the post of Process Associate & Process Developer.
- AbhInandan Shukla & Shubham Rajput also got selected in 'Extra Marks: One-App-One-Solution for all stakeholders' on the post of 'Business Development Executive' with 4.2 to 12.4 Lakhs per annum package.
- ➤ Raj Shamra also got placed as Patent Analyst at Ennoble IP Consultancy Pvt. Ltd, Noida. He has got this offer during the JLU-Career Fair.
- ➤ Ankit Dixit, Student of B.Tech CTIS (CSE) VIII Sem got an internship opportunity at Reliance Digital Platform & Project Services Limited at Mumbai from the duration 12-02-2020 to 10-04-2020.

We congratulate all the selected students on their well-deserved success and best wishes for their next adventure!





School of Engineering & Technology 2019-2020

#### **SOURABH SINGH** (B.TECH CSE VI SEM)







श्रीलंका के कोलंबों में इंटरनेशनल रोल बॉल प्रतियोगिता हुई। भारत से तीन उम्र के खिलाडियों की टीमों ने हिस्सा लिया। एमपी से सौरभ सिंह, तनवीर पटेल, दीपेश चौधरी, हार्दिक भलोट, खुशी वानखेड़ें, तृप्ति कौर को भारतीय टीम में शामिल किया गय था, जिन्होंने अलग— अलग ग्रुप में मेडल जीते। एमपी रोल बॉल संघ के अध्यक्ष महेश जोशी, सिवंव सूर्यदत्त जोशी ने बताया कि इस टीम के कोच हेमंत जोशी थे।

Sourabh Singh, student of B.Tech CSE VI Sem. represented Indian Roll Ball team at Srilanka. He participated in International Rollball Championships 2020 held Colombo, Srilanka from 14-17th February, 2020. This championships was held between Srilanka and India with different categories like sub juniors, junior and seniors Boy and girls both having same categories. His team won Gold Medal in the event. Before that he was shortlished for national level championship.



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School of Engineering & Technology 2019-2020



AKSHAT BAHETY B.TECH CSE VI SEM

- ➤ Akshat Bahety, student of B.Tech- CSE 6<sup>th</sup> SEM, started his own start up named as PINAKULO, With the tagline-"Reach your potential" Pinakulo is a one of its kind Ed-Tech startup bringing the services of digital marketing, educational conferences and events management and software development under one umbrella. Pinakulo has witnessed a major boost in it's educational conferences and has tapped clients in Bhopal, Udaipur, Raipur and Agra as of today.
- Akshat Bahety, participated in National Round of EO **GSEA** A Startup Competition hosted globally. He was one of the 26 Participants from all over the he represented his country. Startup Pinakulo and Jagran Lakecity University. The competition was held at Coimbatore on 8th & 9th February 2020.









#### **AKSHAT BAHETY** (B.TECH CSE VI SEM)



**Akshat Bahety,** student and CR of CSE-VI Sem was invited by Adobe to be a part of the panel discussion on "Creativity for All", an initiative by Adobe for its premier program Adobe Digital Disha. Akshat shared the stage with the VP- Adobe, Mala Sharma. He was the only student invited to be a part of the New Age Education Symposium by Economic Times Edge.

We congratulate Akshat on his well-deserved success and best wishes for his next adventure!



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School of Engineering & Technology 2019-2020



#### SHRIKANT GADE B.TECH (HONS.) CSE IV SEM

This Techfest is the annual science and technology festival of Indian Institute of Technology Bombay. It also refers to the independent body of students who organize this event along with many other social initiatives and outreach programs around the year. Shrikant gade along with his friends visit Mumbai to attended this magnificent festival and participated in this quiz and finally he found the bug in code and win.

We congratulate Shrikant on his well-deserved success and best wishes for his next adventure!

**Shrikant Gade**, student of B.Tech (CSE Hons. IVth Sem), JLU-SOET participated and secured 4th position in Bug Bounty Contest of Techfest at **IIT Bombay** held on 3rd-5th January,2020. In this Bug Bounty Contest of Ethical Hacking, around 300 teams from all over the country were participated.

In the final round Shrikant developed a Command Line Interface based software named "Minibeast" This software got a lot of attention from the judges of the competition and they appreciated the same. Prior to that, during initial rounds he found the vulnerabilities of the target given by organisers & developed a report.







School of Engineering & Technology 2019-2020



#### SHIVAM YADAV, SOURABH BAKSHI, ASHU B.TECH. CSE VI SEM

Students of SOET participated in Anveshan 2020 - Student Research Convention held at JLU on February 6th-7th, 2020. Total Four projects were nominated from CSE in Engineering Field for this event. One of the project titled "Dhwani: A Hand Gestures Recognition for Physically Challenged People" secured 1st rank in Engineering Stream. Now they will participated in final National level event of Anveshan.

Also these students has published a research paper in IEEE explore conference on the topic "Hand Gesture Recognition system for physically challenged people using IOT." Under the guidance of Dr. Dileep Kumar Singh, Head, JLU-SOET and Mr. Rajit Nair, Assistant Professor, Dept. Of CSE, JLU-SOET.





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School of Engineering & Technology 2019-2020



MITANGSHU CHATTERJEE B.TECH (HONS.) CSE IV SEM Mitangshu Chatterjee attended two day workshop on Machine learning with Python where students where taught details of various python packages like NumPy, Pandas and Matplotlib etc along with study of various algorithms like logistic and linear regression On the final day a test was given to all students to create their own program from the various algorithms they had been previously taught Mitangshu Chatterjee of 3rd Sem Btech hons (AI) had successfully completed the test which was later inspected by the trainer and was awarded with a achievement certificate of and winner trophy from Elysium Academy.

The workshop was conducted by Mr. Harish Satya and it aimed to was equip participants with essential skills in machine learning Python. Students through about the basic learnt Python of the concepts libraries and Machine Learning Techniques Basic etc. different hands on sessions based on Script, Sickest Learn, Tensor Flow, Numpy, Pandas etc.









#### **CONVOCATION CEREMONY**

Annual Convocation Ceremony (01-12-2019) was a day worth remembering for the students who graduated as they received their coveted degrees. A total of 19 graduates of B.Tech and BCA from JLU-School of Engineering and Technology received UG degrees; besides Gold Medals and Rank Certificates were bestowed on the top rankers.

Hon'ble Vice-Chancellor, Prof. (Dr.) Anoop Swarup congratulated the graduates. Shri Abhishek Mohan Gupta, Hon'ble Pro-Chancellor conveyed his best wishes to all the graduates. Shri Hari Mohan Gupta, Hon'ble Chancellor, JLU, presided over the ceremony. Shri Digvijay Singh, Member of Parliament, Rajya Sabha, General Secretary, Indian National Congress and Former Chief Minister of Madhya Pradesh delivered the convocation address. The University conferred Honorary Causa to Dr. N Radhakrishnan, Chairman, Indian Council of Gandhian Studies, India and Chef Manjit Singh Gill, Corporate Executive Chef, ITC Hotels.



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School of Engineering & Technology 2019-2020



#### VIBHU MISHRA, SHANTANU INJEWAR BCA IV SEM











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RAJ SHARMA B.TECH CSE 8 SEM

We are delighted to share that Raj Sharma, student of B.Tech CSE (CTIS) -VIII Semester from JLU-School of Engineering and Technology got certified as Red Hat System Administrator by scoring highest marks in all over Bhopal City. He scored 283 while the passing score was 210 in Red Hat Enterprise Linux 8. professional who has earned the Red Hat Certified System Administrator (RHCSA) is able to perform the core system administration skills required Red Enterprise Linux in Hat The environments. credential earned after successfully passing the System Certified Hat Administrator (RHCSA) Exam (EX200).







School of Engineering & Technology 2019-2020



#### SIDDHARTH CHATTERJEE B.TECH (HONS.) ME IV SEM

He also completed A1 level German Language Course beginners from Udemy. He also completed Automotive Electrical Diagnosis (beginner) from Udemy. He learned about different kinds of electrical faults in automobile and to diagnose and rectify them without replacing the parts. He learned to read and understand the Schematic Diagram of fuse box and fuses present in automotive electric circuit

**Siddharth Chatterjee**, student of B.Tech honors Mechanical Specialization Automobile completed 30 days Industrial training in Body shop at CI Hyundai, Bhopal. He learned about working of each and every component present in an automobile. He worked under trained professionals and engineers. Under the training he learned servicing, maintenance and repairing of components of an automobile.

#### CERTIFICATE

This is to certify that Siddharth Chatterjee s\operatorname Mr. Late Mr. Subrato Chattarjee Student of Jagran Lake City B. Tech second year, third semester with Eurollment no. 2018BTME.4003 (Mechanical Branch) attended practical training at C.I. Hyundai (Authorized Dealer of Hyundai Motors India ltd.) from dated 4\[11\]\(2019\) to 24\[12\]\(2019\)successfully. He covered training under Body shop divisions to know how the service station performs.

We wish him for his bright & prosperous future.

-mito Beszuer.

Authorized Signature

For C.I. Hyundai Bhopal

#### **Certificate of Completion**

This is to certify that Siddharth chatterjee successfully completed 17 hours of Learn German Language: Complete German Course - Beginners online course on Jan. 8, 2020

AbcEdu Online
AbcEdu Online, Instructor
&

Udemy





School of Engineering & Technology 2019-2020



#### NIPUN GUPTA B.TECH (HONS.) CSE II SEM

Nipun Gupta has successfully completed the training course of Linkedin Learning Professionals. The training course emphasis on content creation, branding with LinkedIn alongside a broad view of social selling, developing talents, portfolios, and soft skills for emerging Leaders.



This certifies that Nipun Gupta has successfully completed the training course of Linkedin Learning for Professionals. The training course emphasis on content creation, branding with LinkedIn alongside a broad view of social selling, developing talents, portfolios, and soft skills for emerging Leaders.

The Linkedin Learning course is certified under Linkedin Learning 23/1/12 and has passed the quality standard control. Pursuant to Sections 512(82) and (3) of the Digital Millennium Copyright Act, this is a subordinate of Linkedin Learning programme for instructors and this authorize instructors with all assertions made by in submitting this certificate should not be sold or attached without the completion of the training course under penalty of perjury.

Our mission is to connect the world's professionals to allow them to be more productive and successful.

Warmest regards

Sam A.Alsrore

Somaturo

Lastructor

LinkedIn Learning







#### **SUMMARIZED REPORT OF STUDENTS' PROJECT**

Type of Project	Program/Semester	No. of Projects performed in Group	No. of Individual Projects	Total No. of Projects
	B.Tech CSE VIII Sem	02	01	03
	B.Tech CSE VII Sem	02	01	03
	B.Tech CTIS VIII Sem	02	03	05
Major Project	B.Tech CTIS VII Sem	01	06	07
	B.Tech CSE VII Sem (Backlog)	00	01	01
	B.C.A VI Sem	0	12	12
	B.Tech CSE V Sem	03	00	03
M' D'	B.C.A V Sem	04	01	05
Minor Project	B.Tech CSE VI Sem	03	00	03
	BCA IV Sem	09	00	09
Mini Project	B.Tech CTIS VI Sem	00	02	02
Mini Project	B.Tech CTIS V Sem	00	02	02
Gra	and Total	26	29	55





School of Engineering & Technology 2019-2020

#### SOME OF NOTABLE PROJECTS OF STUDENTS

#### **IoT Based Disaster Management System For Large Water Bodies**

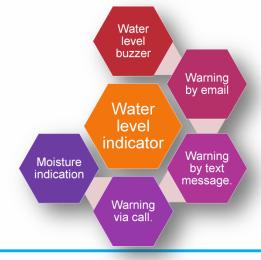
**Team Members:** Abhinandan Shukla & Anuj Singh (CSE – VIII Sem) Milan Tiwari (CSE – II Sem)

Dams are of major importance, primarily because of their use for generating hydroelectricity and irrigation purposes. This has resulted in the construction of a number of dams in potential areas over the years. As there are a lot of risk factors associated with the existence of these dams, it has become the need of the hour to develop a proper regarding monitoring and opening of the shutters thereby management system for maintaining level safe water in dams. Mismanagement of dams can lead to manmade disasters. Currently dams in our state are being monitored and controlled manually.

This manual intervention can increase the probability of error and also results in time lag in decision making. The aim of this project is to design and implement an IoT Based Disaster Management System for Large Water Bodies. The proposed system involves real-time monitoring of water levels of a dam and it can also track the leakage of the dam.













#### **Smart Home: Adding Intelligence To Your Residence**

**Team Members:** Mitangshu Chatterjee (CSE – IV Sem)

Ashish Bankira (CSE – IV Sem) Kapil Chouhan (CSE – IV Sem)

This project is based on designing and implementation of smart monitoring and controlling system for household electrical appliances in real time for the ease and betterment of our daily life routine. This model also eliminates the unwanted losses of electrical energy by the household appliances and adding safety measures which are mostly violated by human mistakes. This project will use sensors, arduino etc. for controlling the electrical appliances.

It optimizes energy without compromising the comfort of the users and administrating the different hazards which might lead to loss of human life. Remote controlling is another option that is available. The system principally monitors electrical parameters of household appliances such as voltage, current and LPG leakage. The novelty of this system is the implementation of controlling mechanism of appliances in different ways and it is a low cost and flexible in operation and thus can save expense of consumers. An automated smart room has been implemented and its suitability has been demonstrated through simulated results and experimental validation.







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School of Engineering & Technology 2019-2020

## Dhvani: A Hand Gestures Recognition for Physically Challenged People

**Team Members:** Ashu (CSE – VI Sem)

Sourabh Bakshi (CSE – VI Sem) Shivam Yadav (CSE – VI Sem)

Hand Gesture recognition are the growing fields of research. Being a significant part in non verbal communication hand gestures are playing vital role in our daily life. Hand Gesture recognition system provides us an innovative, natural, user friendly way of interaction with the computer which is more familiar to the human beings. Hand Gesture Recognition has a wide area of application including human machine interaction, sign language, immersive game technology etc.

In this work they have implemented a method for real time Hand Gesture Recognition and feature extraction using a web camera. In this approach, the image is captured through webcam attached to the system. First the input image is pre-processed and threshold is used to remove noise from image and smoothen the image. After this apply region filling to fill holes in the gesture or the object of interest, this helps in improving the classification and recognition step. Then select the biggest blob (biggest binary linked object) in the image and remove all small object, this is done to remove extra unwanted objects or noise from image









#### I-Beam : An IoT Based Health & Environment Monitoring System

**Team Members:** Shrikant Gade (CSE – IV Sem) Ruchita Sharma (CSE – IV Sem) Siddharth Kushwaha (CSE – IV Sem)

The internet of things provides a virtual view, via the internet protocol to a huge variety of real life objects, ranging from a car to a cup of tea, to a building, to trees and bushes in a forest. Its appeal is to ubiquitous generalized access to the status and location of anything we may be things interested in. The internet of is the network objects, devices, vehicles, buildings and the items which are embedded with electronics, software, sensors and network connectivity which enables these items to collect, analyse and exchange data .An internet of things (IoT) based health and environment based system is best suited to track and analyse the status of the health of the people and the status of the environment. This project displays the functional design and implementation of a complete IoT based health and environment monitoring system which can detect any unusual gases and particles in the atmosphere and can warn the people around to either prevent or minimize such gases that would prove hazardous to human health and to the environment.









#### **Hydro Hammer**

**Team Members:** Siddharth Chatterjee (ME-IV Sem) Sourabh Mishra (ME- IV Sem) Aadel Syed (ME- IV Sem)

This project was based on overcoming the problem of pumping water when there is no supply of electricity present. For pumping water from ground level, electrical or fossil fuel generated pumps are used. This is very expensive for small scale farmers and is impossible for those who don't have electricity in their villages or farms. This model was based on water hammer effect, through which water can be pumped upto 15 feet or more without electricity.

The principle of water hammer effect is whenever there is sudden change in the momentum of the directional flow of water; pressure force is generated due to change in momentum of flow. Through this pressure force created inside the pressure vessel, water can be pumped upto 15 feet and more. The model needs a supply tank which could be a river bank and the model should be placed at some lower height from the supply level and without any electricity water is pumped. It requires no as such manpower. It is cost efficient and has very low maintenance.









#### MAJOR/ MINOR/ MINI PROJECTS

The session 2019-20 was quite innovative in terms of projects, this time all the projects that were presented by the students based on new trends and ideas that are very useful in terns of social needs and requirements. Some of those projects are Smart Electricity Room, Prediction of Average Land Temperature in India Design and Simulation of a Banking Network System, Cloud Automated Accident Reporting System Using Apache CloudStack, Online Hotel Management (Web Secure Application), Food Home: Online Portal To Cook, Deliver & Order Home Food, Data Processing With Distributed Computing, Water level indicator using IOT, APP DETECT: Fraud Mobile Applications Detection System and so on.



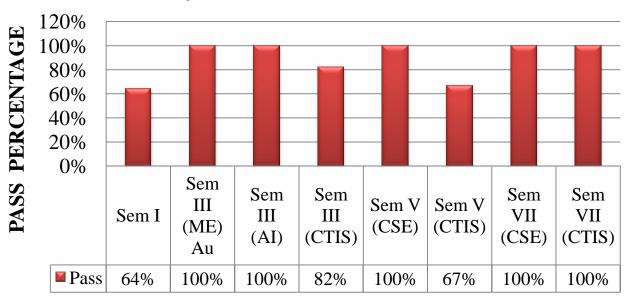




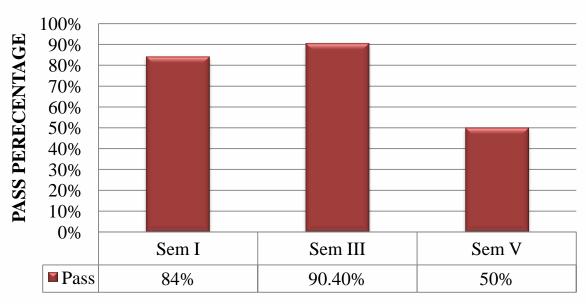


#### **RESULT ANALYSIS OF STUDENTS (JULY-DEC 2019)**

#### Result Analysis -B.Tech in End Semester Exams



#### Result Analysis –BCA in End Semester Exams







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