

# LAKSHMI NARAIN COLLEGE OF TECHNOLOGY EXCELLENCE

## Department of Computer Science & Engineering

**Academic Year**— 2020-2021 —





**VISION OF THE INSTITUTE:** To become a pioneer institute in technical education and innovations to build competent technocrats and leaders for the nation.

#### MISSION OF THE INSTITUTE:



M1. To enhance the academic environment with innovative teaching learning processes and modern tools.

**M2.** To Practice and nurture high standards of human values, transparency and accountability.

**M3.** To Collaborate with other academic and research institutes as well as industries in order to strengthen education and research.

**M4.** To uphold skill development for employability and entrepreneurship for interdisciplinary research and innovations.



#### **VISION OF THE DEPARTMENT**

To be a centre of excellence for providing quality technical education to develop future leaders with the aspects of research &computing, Software product development and entrepreneurship.



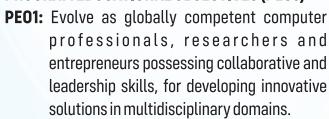
#### MISSION OF THE DEPARTMENT

M1: To offer academic programme with state of art curriculum having flexibility for accommodating the latest developments in the areas of Computer science engineering

**M2:** To conduct research and development activities in contemporary and emerging areas of computer science & engineering.

**M3:** To inculcate moral values & entrepreneurial skills to produce professionals capable of providing socially relevant and sustainable solutions.







**PEO2:** Excel as socially committed computer engineers having mutual respect, effective communication skills, high ethical values and empathy for the needs of society.

**PEO3:** Involve in lifelong learning to foster the sustainable development in the emerging areas of technology.

### PROGRAM SPECIFIC OUTCOMES (PSOs)

A graduate of Computer Science and Engineering Program will develop

**PSO1:** An ability to apply technical knowledge of computer science and engineering fundamentals to become employable in industry.

**PS02:** An ability to develop programming skills using modern software tools and techniques.

**PS03:** An ability to develop real time projects for problem solving of domains such as Machine Learning, Cyber security, block chain and big data

**PS04:** An ability to grab research, higher studies and entrepreneurship opportunities towards society with moral values and ethics.

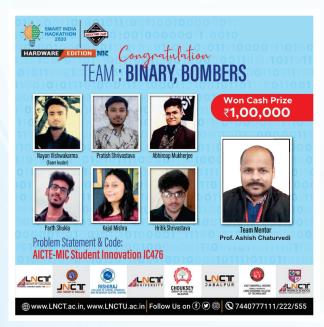
### STUDENT ACHIEVEMENTS

### HACKATHONS

Four students teams and mentors, attended the live sessions and presentation, technical interaction session of grand finale **Smart India Hackathon 2020** during 1st-3rd August 2020 at three different nodal centers.

- 1.Rubix Prof. Harendra Singh
- 2.Alpha Prof. Megha Jain
- 3.Brahmastra- Dr.Megha Kamble
- 4.Binary Bombars- Prof. Ashish Chaturvedi

During which Team Alpha students **Abhishek Jain, Srishti agarwal, Soumik baithalu, Vedika Singh, Balkrishna Yadav, Austin Kuriakose** interacted with MHRD Innovation Cell members.



Bombers mentored by Prof. Ashish Chaturvedi won a cash prize of 1,00,000 in Smart India Hackathon 2020.



Aditya Mandil's selection in ASEAN-INDIA Hackathon 2020, a 36 hours hackathon is being conducted between 10 ASEAN countries. Aditya is representing India, all other five members are from Singapore, Vietnam, Lao PDR & Brunei respectively.

# UNIVERSITY RESULTS

**CSE 2ND SEM** 

100% WITH 172 STUDENTS WITH HONORS, ABOVE 75%

**CSE 4H SEM** 

100% WITH 172 STUDENTS WITH HONORS, ABOVE 75%

**CSE 6TH SEM** 

100% WITH 155 STUDENTS WITH HONORS, ABOVE 75%

**CSE 8TH SEM** 

100% WITH DIKSHA PUROHIT AS TOP SCORER WITH 9.88%

Two students teams participated in the live virtual Hackathon 2020 at **Open Innovation**, **VIT University** at Bhopal nodal centers. Anmol Singh (team leader) and Abhishek Jain (team leader) along with their teams gained experience working on Gravitas Al company problems.

#### **LNCTE CSE 2020-21**

Three student teams presented projects for regional level of **Chhatra Vishwakarma Award**, on 8th April 2021

**400th Prakash Parv Guru tegbahadur ji intra departmental Essay competition** held on 17th April on the topic " Life story of Guru tegbahadur ji"

**GOGO Assistant**: Virtual Voice assistant Project (Team leader: Pratish Shrivastav) has selected for Final National Round of AICTE Chhatra Vishwakarma Award (CVA final round), and presented the project online on 27th May 2021.

4th semester CSE student **Falashwini Sherke** received Surprise Microsoft Award(Pen and Diary with Microsoft LOGO) for her achievement in Microsoft Al assessment.

**Kanak Sharma** published paper, Sharma K. Future with 5G Technology. J Adv Res Netw Comm Engg 2021; 3(1): 1-9.

100 Students participating in **Cognizant Digital Nurture Internship** and 23 second year students cleared Futureskills Wipro talent Test

LNCTE Hackathon club

organized special awareness session for first year students and many teams participating in RGPV state level hackathon.



LNCTE CSE has organized webinar on "Artificial Intelligent & Machine Learning "(21-09-2020), by Key note speakers Dr. Shubhangi Sapkal from Govt College of Engineering Aurangabad

The webinar on "Introduction to AI" by Dr.ShaligramParapet DAVV Indore.(10th Oct 2020)

Shivajirao kadam Institute of Technology and Management Indore has conducted an Innovative software project competition namely PRO- BUZZ(National Level) which is a talent based competition where each group **Innovativeness** can showcase their creativity. LNCTE CSE STUDENTS TEAM grabbed the First Prize.

Alpha\_bits, team leader Madhwan Phadtare with team members Yashraj Pany and Shreya Agrawal, presented and participated in Metored by Prof. Megha Jain

**Grand Finale Toycathon 2021**.

# FACULTY ACHIEVEMENTS

- Dr.Megha Kamble completed ATAL FDP on Reinforcement Learning and its applications organized at IIITDM Jabalpur, 7th-11th June 2021.
- Dr.Megha Kamble selected an Evaluator for Grand Finale Toycathon 2021. Event was scheduled on 22nd -24th June, Nodal Center UCER Allahabad and organized by The Govt of India and Education and related Ministry.
- Prof. Harendra Singh.(7th-11th June), Prof Rajni Kori(21st-25th June 2021)
   (7th-11th June) attended AICTE one week FDP on Universal Human Values.
- Prof. Vinita Shrivastava and Dr.Megha Kamble attended Regional Research Symposium on Problem Based Learning, Organised by Karnataka State Higher Education Council, Bengaluru (India) in Collaboration with Aalborg Centre for Problem Based Learning in Engineering Science and Sustainability under the auspices of UNESCO, Aalborg University, DENMARK.18th-19th June 2021.(Both members nominated based on MOOC completion)
- **Dr. Megha Kamble and Vineeta Shrivastav** completed Problem Learning Teaching Pedagogy courses offered by Aalborg University, Denmark. Now they as a team selected for Regional Research Symposium(online) organized by Karnataka State Higher Educational Council and Aalbog Center Under auspices of UNESCO.

Paper publication



**Prashant Kr Shrivastava** filed, Patent application number 202121026132 SYSTEM AND METHOD TO TRANSPORT PRODUCTS OVER A NETWORK, 24th June 2021

### Book publication



"Internet of Web Technology"
Book published by, Blurose
Publication, authored by

- Prof. Ashish Chaturvedi
- Prof.
   Prashant
   Shrivastava

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### **LNCTE CSE 2020-21**

- Dr. Megha Kamble got a Certificate of Participation for an online training program on Participative Learning through Cases and Simulations during 14th-18th September 2020 at Indian Institute of Management, Ahmedabad for RGPV affiliated institutions under TEQIP-III.
- **Dr. Megha Kamble** participated in the Curtain raiser event of "Frontiers in Interconnected Intelligent Systems and devices" on 30th September 2020. This event is organized by the Department of Science and Technology.
- Megha Kamble, Prashant Shrivastava, Megha Jain published paper in Sciencedirect, Measurement sensors (Elsevier)
   Digitized spiral drawing classification for Parkinson's disease diagnosis, 16(1), 1-8, May 2021.
- Prashant Kr Shrivastava, Ashish Chaturvedi, Ambika Sewaniya, Megha Jain, Sugan Patel attended AOL FDP at LNCT Group.

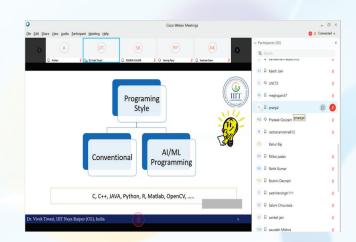
### got a Certificate of Conference Publication



**Vineeta Shrivastava**, A case study on Deep Learning Applications in NLP, presented paper in the National Econference at SAGE University Bhopal, IETE New Delhi and IBA

Prashant Kumar Shrivastava , Megha Kamble presented paper "HRSUD: Hybrid Roadside Unit Deployment System to Improve Vehicular Communication in VANET", in AICTE Sponsored 10th IEEE CSNT 2021 Bhopal ,18-19 June 2021





### PATENTS & COPYRIGHT

- 1.Prof. Ashish Chaturvedi and Prof. Prashant kumar Shrivastava published patent on ELECTRONIC DEVICE FOR PREVENTING COLLISION OF VEHICLES IN LOW VISIBILITY SITUATION.
- 2.Dr. Megha Kamble published patent on IOT controlled unmanned railway gate system.
- 3. Dr. Megha Kamble published patent on Multi Functional Computing Unit.
- 4. Prof. Megha Jain published patent on topic AUTOMATED ELECTRONIC TOLLING SYSTEM.
- 5.Dr. Prashant Kumar Shrivastava published patent on SYSTEM AND METHOD TO TRANSPORT PRODUCTS OVER A NETWORK.
- 6.Prof. Sugan patel Published patent on System for health care resource management in high demands for covid patients using internet of things.
- 7.Dr. Gaurav Soni published 3 patents on topics-AN IOT BASED HEALTH MONITORING SYSTEM AND EMERGENCY ALERT SYSTEM, A SYSTEM AND METHOD FOR SECURE AND COMPETENT ENERGY AWARE ROUTING IN SPONTANEOUS WIRELESS SENSOR NETWORK & A SYSTEM AND METHOD TO IMPROVE ROUTING PERFORMANCE AGAINST DROPPING ATTACK IN WSN AIDED IOT.
- 8.Prof. Megha Jain, Dr. Megha Kamble from student contribution published copyrights on topics- Smart Bike Intelligent System, Dronigation, & Crop disease Prediction App.
- 9.Prof. Megha Jain, Prof. Prashant Shrivastava from student contribution published copyright on topic- Automated Sewage Cleaning & Use of poultry litter as a manure with IOT based management system.
- Book Chapter: A new approach for parkinson's disease imaging diagnosis using digitized spiral drawing,
  - CRC Press Book: Soft Computing Applications and Techniques in Healthcare, https://www.taylorfrancis.com/books/e/9781003003496/chapters/10.1201/9781003003496-3, (2021). Soft Computing Applications and Techniques in Healthcare. Boca Raton: CRC Press, https://doi.org/10.1201/9781003003496,pp 36-58.by Dr.Megha Kamble

### **WEBINARS AND EXPERT TALKS:**

- LNCTE CSE organized webinar on "HOW TO MAKE FFECTIVE POWER POINT PRESENTATION", on 12th February 2021. The skills are demonstrated by the technical expert Austin Kuriakose. Coordinator of the program were Prof. Megha Jain , Prof. Sitaram Patel, Prof.Vinita Shrivastava. 78 students participted in the webinar.
- The virtual orientation program for B. Tech. second, third and fourth year was scheduled for the students and their parents of each department during 10th-14th August 2020. In which prominent dignitaries addressed regarding online classes, Learning Management System (LMS) of LNCTE, and academic achievements and system in the upcoming semester.
- Department of CSE, Lakshmi Narain College of Technology Excellence Bhopal has oranganized a webinar on "DATA SCIENCE: AN OVERVIEW " on 19/02/2021, By Dr. Yachana Bhawsar, Professor of Govt Women's Polytechnic Bhopal. 47 students of B.Tech.CSE and 10 faculties attended and participted in the webinar.
- Exclusive sessions for LNCTE
  CSE students in Sri Sidheshwar
  Tirth Brahmarishi Ashram's FirstEver Global Virtual Navratri
  Mahotsav 2020 by renowned
  International Spiritual Speakers on
  the topics: War your Oxygen
  Masks (Yoga and Pranayama),
  Meditation, Emotion management,
  Gameshow, etc.

 CYBER SECURITY AND **BLOCKCHAIN** SECURITY (Digital Battle) Webinar conducted on 12th June 2021, BY--Ajinkya Lohakare Cyberguru -Certified Ethical Hacker, CTO and Founder, Social Spectra and Dreamssofts.

Ajinkya Lohakare is a computer security expert and a Podcaster, who assisted law enforcement in Bangladesh, India, Sri Lanka and various parts of Asia since 2015 on Cyber security cases, advising government on Cyber-crimes. Ajinkya Lohakare has delivered talks at general interest events such as JOSH TALKS, TEDX, VEDH TALKS and Data security events.

#### ABOUT THE SESSION-

The session elaborated various means of Cyberattack including Internet Services, net banking security issues and demonstrated how our data is unsafe on internet. Various measures which should be followed in order to be safe against the Cyber crimes were also discussed.

• Industry Academia Talk for the Elective Subject "Project Management" By Anand Narwadkar (Certified Project Management Professional) Project management Operations. Honeywell Automation India Ltd on 19th Feb. 2021. This is a brief session that will cover some concepts from there elective subject Project Management in 6th semester. The topics covered are what is project? Stakeholders and their needs!, Deliverables and Inputs to what level? How to break it down, what can go wrong? And project timelines and Track the project. 75 third year students attended it.

### **EVENTS**



Exclusive sessions for LNCTE
CSE students in Sri
Sidheshwar Tirth
Brahmarishi Ashram's First
Ever Global Virtual Navratri
Mahotstav 2020 By renowned
International Spiritual
Speakers on the topics: War
your Oxygen Masks (Yoga and
Pranayam),
Meditation,Emotion
management,Game show

IoT workshop on 13 to 14 Feb 2021, by Abhigyanam, Indyses Ltd.

Cyber Security Workshop, 18 to 23 Feb 2021, by CyberWarfare Labs.

Art of Living's Student Excellence & Learning Program(SELP) organized by RGPV under TEQIP III for LNCTE exclusively, 17 june -22 June 2021

Workshop on Data Science using R Programming , Conducted from 17 to 21 February 2021, Under RGPV TEQIP-III

LNCTE CSE Department had organized a live coding competition with two rounds for the participants on March 4th 2021 during Planet Engineering, Codevita and LAN Gaming.



**Department of CSE** has organized creative festive Bonanza **Advait 2020** for **LNCTE CSE students** to explore art and innovation three online competition held for poster designing, story writing and video making on the theme of positive outcomes of COVID pandemic and Indian Festivals. Students have participated in good numbers for the same. Ranveer Raj, Atharva shrivastava, Yogita Patil and Kanak Sharma were the student coordinators.

#### Winners For the same:

Punit Tiwari, Nishi Gupta, Avani agrawal, Pragya Shrivastava (Poster Designing),

Sabina Akhtar, Milin Marathe, Falswini and Kanak Sharma (Video making)

Anjali Anil and Kanchan Vidhani (Story writing)







#### **LNCTE CSE 2020-21**

### **OCCUPIE** CERTIFICATE



T&P Department organized training and certification **Microsoft Al/Ml and Adobe UX development**. Students with a good number participated in the program. DRASHI JAIN KHUSHBOO SHUKLA, MILAN SARU from third-year completed Microsoft Al/ML certification.



**Course Era Certification** – Multiple certification completed by Ritik Nakra, Drashi Jain, Aushi Jain, Riya Jain, Austin Kuriakose, Harsh Jain, Vikas Lavaniya, Rahul Nain

T&P Department organized "**Training on C/C++ language**" from 11th August 2020 for the final year students (Batch 2021). T&P Department also organized "**Telephonic Mock Interviews**" from 1st - 10th August 2020 for the final year students (Batch 2021).



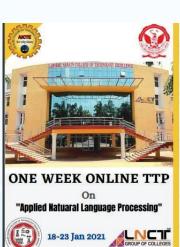
- Department of CSE, Lakshmi Narain College of Technology Excellence Bhopal organized student interaction program by senior student of the institute on 9th and 15th February 2021 on "How to start competitive coding & development. 100 students participated.
  - T&P Department organized seminar on "Presentation Skills" on 5th August 2020 for the second to Final Year students in association with Cambridge Assessment.
  - T&P Department organized Webinar by Evosys-Mastek on "Project Deep Blue" is an intercollegiate competition, encouraging Engineering Students to solve social problems using coding skills, to come up with meaningful technical solutions for final year students on 12th August 2020 at 6 PM to 7 PM.

### AICTE RGPV ONLINE TTP:

AICTERGPV One week Online TTP(18 jan to 23 jan 21) is compeleted on "Applied Natural Language Processing" H by Department of CSE, Lakshmi Narain College of Technology excellence Bhopal.cordinator is Dr.Megha Kamble



This was 6 days online TTP focuses on a specific domain of Al - Natural Language Processing and covers the core concepts of **Natural** Processing. Language language models about text processing and text analytics, speech relation extraction, translation and speech recognition with **Eminent** experts from Academics and Industry. This TTP provides an unique combination to Faculty paternity to explore these areas in detail and have hands on with some technologies like python and R programming.



- Prof. Harendra Singh Prof. Raini Kori
- Prof. Sitaram Patel
  Prof. Prashant Shrivastava Prof. Ashish Chaturvedi

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#### **ABOUT THE INSTITUTE:**

With a clear vision of "Developing this institute into a center of excellence in the country with global standards." LNTE was started in the year 2007. Department provides an ambient traching learning environment for its students through qualified, experienced facelly and smart classroom and online classroom facility. To englip our students with the latest developments in Computer Science Engineering; conducted various STIP, 190°, hands on practice sessions, conferences, symposium, seminars funded by AICTL, TEQIP and MPCST to bridge the gap with the industry, Research guidance and the project development guidance to the students with the various other experienced faculty members that is reflected in SIII, chatra vishwakarma, amart city contents. Students have been selected in the incubation center and are working on startup ideas in the incubation cell, registered and published patents and copyrights.

#### PROGRAM OBJECTIVE:

This 6 days online TTP focuses on a specific domain of Al - Natural Language Processing and covers the core concepts of Natural Language Processing, language models about text processing and text analytics, relation extraction, speech translation and speech recognition with Eminent experts from Academics and Industry, This TTP provides an unique combination to Faculty paternity to explore these areas in detail and have hands on with some technologies like python and R programming.

#### WHO CAN PARTICIPATE:

Teachers from AICTE Approved Institutions across the country and RGPV Affiliated Institutes.

#### **REGISTRATION PROCESS:**

- Registration is through the online portal <u>Haragananline.org</u>
  Online registration is mandatory for all the participants.
  Registration will be not be accepted after the start program.
  Please Visit <u>Haragananline.org</u> on homepage, select AICTE-RGPV TTP on "Applied Natural Language Processing". Click on <u>Register Here</u> Choose Program Title—AICTE-RGPV TTP on "Applied Natural Language Processing". RGPV 111 Register Here Choo Toolfood Natural Lan

CHIEF PATRON

Prof. Anil D. Sahasrabudhe, Chairman, AICTE New Delhi Shri J. N. Chouksey, Chairman LNCT Group

PATRON(S)

Dr. C.S. Verma CRO, AICTE Dr. Anupam Chouksey, Secretary, LNCT Group **ADVISORY COMMITTEE** 

Dr. Savita Vyas, RGPV Bhopal Dr. V.K Sahu, Principal LNCTE Dr. A.K. Sachan, Principal LNCTS Dr. Anuj Garg, Director TNP LNCT Group

### **RESEARCH & PUBLICATIONS**

- Predictive Analysis of Rainfall using ML Algorithm, ComPE, North Estare Hill University, Shillong, Meghalaya. Presented by Anmol Singh on 2-4 July 2020.
- NWP Model combined for hourly Solar prediction, At International Springer Conference ICBMA 2020 at MNNIT Allahabad. Presented by Dr. Megha Kamble & Anmol Singh
- Bridge Age Analysis Software, Aditya Mandil, Aditya Pal, Dr. Megha Kamble
- An Improved security and Eliminating Malicious Node using Reliable Function in vehicular Ad-Hoc Network (VANET), Prashant Shrivastava, Journal of The Institution of Engineers (India): Series B (Scopus).
- NCC-Template matching using Adaptive Statistical Fast LTP Features Makeup Faces, Sugan Patel, International Journal of Control and Automation, 13(4), 782 -792.Retrieved from http://sersc.org/journals/index.php/IJCA/article/view/18872
- Research Paper "NWP models combined with Ensemble Models for Hourly Estimation of Global Solar Irradiance" by Megha Kamble, Anmol Singh, published in Lect. Notes in Networks, Syst., Vol. 150, PROCEEDINGS OF INTERNATIONAL CONFERENCE ON BIG DATA, MACHINE LEARNING AND THEIR APPLICATIONS, 978-981-15-8376-6, 488284\_1\_







# STUDENT TESTIMONIALS





batch 2017-21









### **ALUMNI'S SUCCESS STORY**



Vedant Taneja completed M.S Business Analytics from UT DALLAS

Deepak Singh Gurjar secured ALPHA grade in NCC "C" certificate exams. 2020





Aman Gupta joined as Associate Software Engineer at J.P Morgan Chase & Co.



# Editorial Board



Dr. Megha Kamble. HOD. CSE Prof. Megha jain Dept. of CSE Prof. Sitaram Patel, Dept. of CSE

### **Student Coordinators**

Yashraj Madhwan Atharva Ranveer Pany Phadtare Shrivastava Raj