About the University

REVA University is a State Private University established in Karnataka State under the Government of Karnataka Act No. 13 in the year 2012 in Bengaluru, the IT capital of India. The University is recognised by the University Grants Commission (UGC) and is approved by the AICTE (All India Council for Technical Education).

REVA University prides itself in contributing to every student's holistic development. The University currently offers 38 full-time Under Graduate Programmes, 33 full-time Post Graduate programmes, 20 PhD programmes, and certification and diploma programmes. The University offers programmes in Engineering, Architecture, Science and Technology, Commerce, Management Studies, Law, Arts & Humanities, and Performing Arts. Courses are offered in Certificate/Diploma and Post Graduate Diploma too. REVA University facilitates research leading to a Doctoral Degree in all disciplines. The programmes offered by REVA University are well-planned and designed based on methodical analysis and research with emphasis on knowledge assimilation, practical applications, hands-on training, global and industrial relevance, and their social significance.

Teachers and instructors with illustrious academic experience are the architects of the meticulously designed curriculum and program modules offered at REVA University. They come with industrial exposure and experience that often translates through their teaching, thus bridging the gap between the industry and academia.

REVA University has an updated, ever-evolving collection of books, journals, and digital content in the library with the latest IT infrastructure that ensures students have information at their disposal. The lush green campus, state-of-the-art laboratories, custom-designed classrooms to enable seamless learning, and world-class indoor and outdoor sports facilities make REVA University the most preferred university among students and MNCs that visit the campus for placements.

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Science and Engineering Research Board (SERB)
Department of Science and Technology (DST)
Govt. of India

DST-Science and Engineering Research Board (SERB), Govt of India, New Delhi Sponsored Five days Seminar on

Next Generation Automation: Bridging Electronics and Mechanical systems in Industry 4.0

Date: 22nd to 26th July, 2024

Organised by
School of Electronics & Communication Engineering
&
School of Mechanical Engineering

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REVA UNIVERSITY
Bengaluru, India

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About the School of ECE

The school of Electronics and Communication Engineering offer B. Tech in Electronics and Communication Engineering- NBA Accredited, B Tech in Electronics and Computer Engineering, B Tech in Robotics and Automation and M. Tech programs in various specialized streams. Course curriculum of school of ECE is designed to give greater emphasis on core Electronics and Communication Engineering with a flexibility to explore few of the areas like circuits, devices, signal processing, communication engineering and programming. B. Tech in Electronics and Computer Engineering B. Tech (ECM) program is designed to provide quality education imparting skills on Electronics, hardware, software and IT development. The school has well experienced faculty and staff to cater to the academic and overall development of students. The School of ECE labs are equipped with advanced hardware and software tools to pursue research in the field of signal processing, VLSI and Embedded Systems, MEMS, Wireless Communication and sensor Network.

About the School of ME

The School of Mechanical Engineering, REVA University is headed by dedicated and Experienced Professor of Mechanical and Mechatronics Engineering and is supported by well qualified faculty members. The School has state of the art classrooms and well-equipped laboratories. The School offers B. Tech in Mechanical Engineering- NBA Accredited, Mechatronics Engineering, Aerospace Engineering & M. Tech in Machine Design Program's. It also has Research Program's leading to Doctoral degree. The curriculum of both graduate and post graduate degree programs have been designed to meet the present and future mechanical engineers. It attempts to bridge the gap between academia and industry.

Objective of the Seminar

Educating future students and researchers in interdisciplinary approaches prepares them to tackle the complex challenges of the future and fosters a more adaptable and resilient scientific workforce.

The Interdisciplinary study promotes collaboration and communication skills among faculties, students &researchers, as they learn to work effectively across disciplinary boundaries. Interdisciplinary training helps faculties and students to develop a broader skill set and a more flexible mindset, making them more adaptable to changes in research trends, methodologies, and the evolving needs of society.

In Industry 4.0, there's a growing emphasis on integrating electronics and mechanical systems to create interconnected and intelligent production environments. IoT plays a crucial role in next-generation automation by connecting devices and equipment across the manufacturing floor. Here are some key aspects and trends within this broad area: Advanced Robotics, Cyber physical Systems, Additive manufacturing (3D printing), Digital twins, Artificial Intelligence and machine learning, Block chain technology etc.

Course Contents of the Program

- Introduction to Industry 4.0: Trends and Challenges
- Fundamentals of Electronics and Mechanical Integration
- Sensor Technologies for Smart Automation Systems
- Advanced Robotics and Machine Learning in Industry 4.0
- Internet of Things (IoT) Applications in Manufacturing
- Cyber-Physical Systems Security in Industry 4.0
- Additive Manufacturing and 3D Printing Innovations
- Autonomous Vehicles: for Smart Transportation
- Safety and Compliance in Industry 4.0: Integrating Electronics and Mechanical Controls
- Cloud Computing
- Safety and Compliance in Industry 4.0: Integrating Electronics and Mechanical Controls
- Cybersecurity Challenges in Integrated Electronics-Mechanical Systems of Industry 4.0
- Quantum Computing
- Blockchain Technology
- Machine Learning
- Data Analytics
- Python Programming
- Drone Technology for Industry 4.0

Dates to Remember

- Last date for receiving applications is 10.07.2024
- Intimation of selection through E-mail by 15.07.2024

Guidelines

Registration Details

- Participants are requested to fill online registration form.
- Payment should be done through online mode.
- Eligible participants will be selected based on First Come First Serve (FCFS) basis and selected participants will be intimated via E-mail.
- On the last day of the program an assessment test will be conducted for all registered participants.
- Those who have an attendance of minimum 80% and score more than 60% in the test will be issued a certificate.
- Registration Fee: Rs. 300/-
- Payment Link :
https://www.reva.edu.in/payment

Registration

Registration must be done only through Google form link: Participants are requested to fill online registration form.
https://forms.office.com/r/RxwGRXDdYA

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REVA UNIVERSITY
Bengaluru, India

DAY	DATE	Session 1 (9:30 AM to 11 AM)	Session 2 (11:15 AM to 12:25 PM)	Session 3 (1:30 PM to 3 PM)	Session 4 (3 PM to 4:30 PM)
DAY1	22/7/2024	Inauguration Session	Topic: Introduction to Industry 4.0 : Trends and Challenges Resource Person: Mr. Vinod Saladi CEO, Fujitsu India Pvt ltd, Bangalore	Topic: Additive Manufacturing and 3D Printing Innovations Resource Person: Dr. C Ramaprabhu Scientist& Joint Director, DRDO	Topic: Internet of Things (IoT) Applications in Manufacturing Resource Person: Dr. R Shashikumar Professor, Dept. of ECE, REVA Uty
DAY2	23/7/2024	Topic: Sensor Technologies for Smart Automation Systems Resource Person: Dr. Cyril Prasanna Raj Director, CCCIR Bangalore	Topic: Drone technology for industry 4.0 Resource Person: Dr. Suresh Sundaram Professor, Aerospace dept., IISC, Bangalore	Topic: Fundamentals of Electronics and Mechanical Integration Resource Person: Dr. Sathish Paulraj Gundupalli Design & Automation Dept. VIT, Vellore	Topic: Autonomous Vehicles: for Smart Transportation Resource Person: Dr. R Ramakrishnan Associate Professor, VIT, Vellore
DAY3	24/7/2024	Topic: Python Programming Lab (Hands on session) Resource Person: Dr. Mohammed Khurram CEO, Cryptovibes Technology Pvt ltd, Bangalore	Topic: Quantum Computing: Implications for Electronics-Mechanical Optimization in Industry 4.0 Resource Person: Dr. Goutam Sanyal Emeritus Professor, CSE Department REVA University	Topic: Data Analytics Resource Person: Dr. Gururaj Badri Professor, KLETECH Uty, Hubli	Topic: Data Analytics Lab (Hands on Session) Resource Person: Dr. Gururaj Badri Professor, KLETECH Uty, Hubli
DAY4	25/7/2024	Topic: IoT Programming (Hands on Session) Resource Person: Dr. R Shashikumar Professor, Dept. of ECE, REVA Uty	Topic: Advanced Robotics and Machine Learning in Industry 4.0 Resource Person: Dr. Rajivlochana Professor, Amrita college of Engg	Topic: Cloud Computing Resource Person: Dr. Sameer Kulkarni Professor, IIT, Gandhinagar	Topic: Machine Learning (Hands on session) Resource Person: Mr. Mohammed Azar CEO, Indoskills, Bangalore
DAY5	26/7/2024	Topic: Safety and Compliance in Industry 4.0 Resource Person: Mr. Patil K Gunavanth Senior Manager, Collins Aerospace, Bangalore	Topic: Blockchain Technology Resource Person: Dr. Bhawana Rudra NITK, Surathkal	Topic: Cyber-Physical Systems Security in Industry 4.0 Resource Person: Miss. Moutan Sarkar Sr Delivery manager, TCS, Bangalore	Valedictory Session

Note: TEA BREAK between Session 1 and Session 2. Lunch Break (12:45 PM – 1:30 PM) between Session 2 and Session 3.

For Communication

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