

Third International Conference on Intelligent Computing, Instrumentation and Control Technologies-2022

ICICT-2022

Computational Intelligence
for Smart Systems

11th and 12th
August 2022

IEEE Conference Record Number: #54557

Technically CO-Sponsored by IEEE Kerala Section



Organized by

The Department of Electronics and Instrumentation Engineering

VIMAL JYOTHI ENGINEERING COLLEGE

**JYOTHI NAGAR, CHEMPERI,
KANNUR, KERALA, INDIA**



A BRIEF HISTORY ABOUT THE COLLEGE

Vimal Jyothi Engineering College (VJEC) is an educational project of the Archdiocese of Thallassery established in the year 2002 and is managed by Meshar Diocesan Educational Trust. The college is approved by AICTE and Affiliated with APJ Abdul Kalam Technological University (KTU). VJEC is a self-financing catholic minority institution aiming at generating a fervour for Engineering and Technology in students. Here we inspire, nurture and foster them to realize their career potential in the field of Engineering and Technology. With profound insight into the resource requirements of the higher education system, VJEC has proudly set up a world-class infrastructure complemented with intellectual capital in the form of competent faculty. Many of the facilities are way beyond the regulatory requirements aiming for learning beyond the syllabus to address the requirements of the industry. These material facilities along with value-added programs and student support systems are the integral facets of empowerment at VJEC. Digital library, industry-supported project labs, language lab, and student chapters of professional bodies such as IEEE, ISOI, IETE, SAE, CSI offer an extensive range of resources, opportunities, and services to the outcome-based teaching-learning process. Effective implementation of quality control processes ensures Engineering graduates with the expected level of knowledge, skill, and attitude. Vimal Jyothi Engineering College is a NAAC and IEI accredited institution and four U.G. programs are accredited with NBA.

ABOUT THE DEPARTMENT

The Department of Electronics and Instrumentation Engineering was established in the year 2005 under Kannur University with a B.Tech. program in Applied Electronics and Instrumentation Engineering. The M.Tech. program in Control and Instrumentation was started in the year 2013. The department is an approved research center for Kerala Technological University. The department conducts various programs to enhance the inherent potential of the students. The department is equipped with Process Control Lab, IIN Lab, smart calibration facility, Yaskawa Robot, AR/VR studio, MATLAB, and LabVIEW software which is extensively used by our students for their projects.

VISION:

The department strives to enrich professionals of high competency in the area of instrumentation engineering and mould them to adopt the crux of matter in the field of automation.

MISSION:

To prepare the students to envisage beyond the hypothetical thinking and belong to a new era of acquisition and application of instrumentation technology to meet the requisition of the changing world.

ABOUT THE CONFERENCE

The Department of Electronics and Instrumentation Engineering of Vimal Jyothi Engineering College, one of the prominent Engineering Institution in Kerala, takes immense pleasure in organizing the Third International Conference on Intelligent Computing, Instrumentation and Control Technologies, ICICICT-2022. Previously in the years 2017 and 2019, ICICICT-2017, ICICICT-2019 were conducted successfully with the technical co-sponsorship of IEEE India Council. For those conferences, we had received sponsorships from ISRO, KSCSTE, CSIR, and DRDO also. Those conferences were conducted as two days events at 28 different venues, eight keynote addresses by eminent personalities and the participation of about 400 delegates from different parts of the world witnessed the success of the events. A total of 300 papers were presented on each of the events and all the qualified papers were published in IEEE Digital Explore Library in the following links and they were indexed in the SCOPUS database. <https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=8337463> <https://ieeexplore.ieee.org/xpl/conhome/8967528/proceeding>. ICICICT-2017 & ICICICT-2019 events gained very positive feedback from the academicians, researchers, participants, and guests. To build on the success of the previous year's efforts and provide a continuum for workers in the fields, the next version of this conference is planned as the ICICICT-2022. It is planned to hold the event during 11th & 12th August 2022 with the theme Computational Intelligence for Smart Systems. The Conference will be serving as a platform for the researchers, academicians, scientists to present their recent works in the fields of significant importance, new trends in current research activities and novel technologies, interact and exchange ideas, serve in the networking of participants and promote the future growths in thematic areas. It is also proposed to have an array of eminent plenary speakers in the core areas of conference themes for previewing the topic area trends, opportunities, and applications.

AIM OF THE CONFERENCE

The key objective of this conference is to provide an open forum for participants to interact and exchange ideas and experiences on latest technologies and future trends. The discussions would also focus on evolving intelligent computing and smart technology philosophies.

A. Computational Intelligence

- Adaptive And Intelligent Systems
- Advanced Affective Computing and Robotics
- Advanced Cognitive Computing
- Algorithms and Bioinformatics
- Architectures, Theory and Models
- Artificial Neural Networks
- Biomedical Informatics and Computation
- Blockchain Technology and Applications
- Fog Computing and Edge Computing
- Green Computing and Communications
- High Performance Computing and Networking
- Hybrid Computational Intelligence
- Information and It's Technical Education
- Knowledge Discovery and Data Mining
- Learning Classifiers
- Mobile and Wearable Computing
- Multimedia Systems & Services
- Parallel And Distributing Computing

B. Data science and AI

- Big data system & Smart data outputs
- Computer Vision
- Database & Data Fusion and Mining
- Evolutionary algorithms
- Expert systems
- Fuzzy Logic System
- Hybrid Artificial Intelligent Systems
- Machine Learning
- Multi-agent system
- Natural Language Processing
- Reinforcing Learning and Deep Learning
- Support Vector Machines
- Swarm Intelligence

C. Smart Systems and Applications

- Industry 4.0
- Smart Agriculture Technology
- Smart Sensors
- Smart Physics
- Smart Cities and Green Development
- Smart Health and Bioinformatic
- Smart Learning Technology
- Trust, Security and Privacy in Smart Systems
- Vehicular Networks and Systems
- Advanced Virtual/Augmented Reality (VR/AR)

D. Signal Processing & Communication

- 5G Networks
- 6G Networks
- Ad hoc And Sensor Networks
- Bio Image Processing
- Coding, Transmitting, Estimating
- Cognitive Radio
- Communication Protocols
- Connected Machines
- Digital and Analog Communication
- High Speed Communication
- Hyper Network Communication
- Machine to Machine Communications
- Mesh, Relay, Sensor And Ad hoc Networks
- Mobile Ad Hoc Networks
- Network and System Security
- Network Communication
- Networking and Communication Protocols
- Open Spectrum Solutions
- Signal Analysis Algorithms
- Signal Detection and Parameter Estimation
- Signal, Image and Video Processing
- Speech and Audio Processing,
- Social Network
- Space Communication
- Wireless Communications

E. Control and Instrumentation

- Aerodynamics & Structures
- Air Traffic Control
- Airspace Control
- Analytical And Virtual Instrumentation
- Attitude And Orbit Control System
- Autonomous Navigation
- Biologically Inspired Systems
- Biomedical Instrumentation
- Chaos and Control Applications
- Command and Fire Control Systems
- Control Architectures
- Control of Biological and Bionics Systems
- Fault Detection and Diagnosis
- Guidance & Control Technologies
- Industrial Networks and Automation
- Launch Technologies
- Linear & Nonlinear Control
- Manned/Unmanned Aviation
- Measurement -Data Acquisition
- Modelling and Simulation Techniques
- Navigation and Path Planning
- Neuro Fuzzy Control
- Optimization and Decision Making
- Process Control and Instrumentation
- Propulsion Systems Design and Optimization
- Robot Design, Development and Control
- Robotics and Automation
- Robust and Optimal Control
- Rocket and Satellite Technology
- Satellite Dynamics and Control
- Sensor Fusion, Smart Sensors
- Targets-Detection and Tracking
- Vision Recognition and Reconstruction
- Stochastic Control and Filtering

F. IOT and Cloud Computing

- Cloud Computing and applications
- Internet of vehicle (IOV)
- Communication protocol for IOV
- Internet of Everything (IOE)
- Industrial Internet of Things (IIOT)
- Internet-of-Drones
- Virtualization and Cloud Computing Management
- Web services and Web of Things
- Open topic for future IOT
- Systems for IoT and Services Computing

G. Electrical Systems

- Automated Guided Vehicles
- Electric Machines Design
- Hybrid Energy System
- Hybrid Vehicle
- Industrial Drives
- Industrial Electronics
- Low Power Applications
- Micro and Nano Grid
- Power Converters
- Power Electronic Systems
- Green Energy System
- Smart Grid
- Special Machines

MANUSCRIPT SUBMISSION

The authors are expected to submit original research papers which have not been submitted elsewhere in other Conferences and/ Journals. Papers should be submitted through easy chair link <https://www.easychair.org/conferences/?conf=icicict2022>. Email submissions will NOT be accepted. The authors should strictly adhere to the IEEE format. For further queries in this regard, please email to icicict2022@gmail.com

PUBLICATION

Based on the review, selection, acceptance, registration and presentation, the papers will be eligible for submission to the IEEE digital explore library with ISBN XPLORE COMPLIANT 978-1-6654-1005-2.

PROPOSED CONFERENCE SESSIONS/EVENTS

- Professional Development Sessions
- Concurrent Case Studies
- Opening Ceremony
- Plenary Sessions
- Panel Discussions
- Poster Presentation
- Conference Exhibition
- Conference Tour
- Conference Dinner

IMPORTANT DATES

Full Paper Submission	: 4 th March 2022
Notification of Acceptance	: 5 th May 2022
Final Paper Submission and Author's Registration	: 6 th June 2022
Conference Date	: 11 th and 12 th August 2022

REGISTRATION FEE

Category	Delegates From India		Foreign Delegates	
	IEEE Members	Non-IEEE Members	IEEE Members	Non-IEEE Members
UG/PG Students	INR 5000/-	INR 6000/-	US\$200	US\$250
Faculty/Research Scholar	INR 6000/-	INR 7000/-	US\$250	US\$300
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Co-Author/Attendee	INR 2000/-	INR 3000/-	US\$100	US\$100

If a paper is authored by a single author, he/she must register for the conference. If it is by more than one author, at least one of the authors must register for the conference on or before 6th June 2022. Participants of the conference may address their queries if any, regarding the paper submission or any other matter to the email ei_events@vjec.ac.in. A late registration fee (after 6th June 2022) of Rs.500/- should be paid along with the registration amount till 25th June 2022. For more details and registration form, please refer to <http://www.vjaei.com>.

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The hotels situated near the institution have come forward to offer concessional rates to ICICT guests. Participants may contact the organizers for room bookings.

A limited number of rooms in the College hostels are available and bookings for the same will be done on a first come first serve basis.

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