

2022 Second Global Conference on

# Recent Developments in Computer and Communication Technologies

28 – 29, July 2022 | Mangalore, Karnataka, India | www.gc-rdct.com



HYBRID MODE

## GC-RDCT 2022

The scope of the 2022 Second Global Conference on Recent Developments in Computer and Communication Technologies (GC-RDCT 2022) is to provide a forum for researchers, scientists, academicians, scholars and practitioners around the world to present papers on recent developments in the broad fields of Computers and Communication technologies. The GC-RDCT 2022 aims to bring together leading academic scientists, researchers and research scholars to exchange innovative and novel ideas, share field trial experiences in sustainability issues and to open a new window on the circumstances of the classical energy sources and their harmful impact on people, society and environment. We invite industrial and academic professionals from across the world in the fields of computer and communication technologies to discuss and exchange ideas in the areas of world's great importance such as computer, electronics, information and communication technologies. The conference also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the above fields.

## Call for papers

GC-RDCT 2022 invites full length original research contributions from engineering professionals from industries, R&D organisations, academic institutions, government departments and research scholars from across the world. Full length original research contributions and review articles in the IOP single column format shall be submitted. There is NO PAGE LIMIT. The manuscript template shall be found in the downloads section. The manuscript should contribute original research ideas, developmental ideas, analysis, findings, results, etc. The manuscript should not have been published in any journals/magazines or conference proceedings and not under review in any of them. Further the manuscript should contain the name of the corresponding author with e-mail id and affiliation of all authors.

Soft copy of the full length manuscripts (in .doc and .pdf) shall be submitted to [gc-rdct@ajiet.edu.in](mailto:gc-rdct@ajiet.edu.in).

## Topics (but NOT limited to)

### Track 1 - Electronics and Communication Engineering

Broad Band Communication | Computer and Intelligent Communication | Mobile and Optical Communication | Wireless Communication | Mobile and Optical Networks | Wireless Sensor Networks | Network Security | Advanced VLSI Systems | Embedded Wireless Systems | Medical Informatics | Hardware Engineering | Mechatronics | Automation

### Track 2 - Computer Science and Engineering

Geo-informative Systems | Grid Computing | Pervasive Computing | Digital Image and Video Processing | Computer Vision and Image Analysis | Data Mining and Cloud Computing | Computer Architecture | Computer Networks | Distributed Computing | Artificial Intelligence & Soft Computing | Optimization Techniques | Human-Computer Interaction | Theoretical Computer Science | Computer Applications | Expert Systems

### Track 3 - Electrical Engineering

Electrical and Electronic Materials and Process | Semiconductor Technology | Power Systems and Energy Engineering | Soft Computing Techniques in Power Systems | Transmission and Distribution System and Apparatus | Instrumentation & Feedback Control Systems | Power Electronics & Energy Efficient Drives | Renewable Power Conversion Technologies | Power Quality Improvement Techniques | HVDC/FACTS | Electrical Machines and Industry Applications | Bio-medical Engineering | Intelligent Systems | High Voltage Engineering & Insulation Technology | Photo/Opto Electronics

### Track 4 - Advanced Materials

Biomaterials | Composite Materials | Energy Storage and Conversion Materials | Renewable Materials | Functional Materials | Nano Materials | Building Materials | Chemical Materials | 3D Materials | Cryogenic Materials | Polymer Science | Smart/Intelligent Materials/Intelligent Systems | Optical/Electronic/Magnetic Materials | Automation, Control and Information Technology | Magnetic Materials and Smart Materials for Specific Applications | MEMS and Structural Control | Active Materials in MEMS Applications | Materials Property and Characterisation | Thin Film Technology

## Registration fee details

Category	Indian authors	Foreign authors
Graduate students	Rs. 7,500	USD 200
Research scholars / Academicians	Rs. 8,000	USD 200
Industry / Others	Rs. 10,000	USD 200
Listeners*	Rs. 2,000	USD 100
Poster**	Rs. 4,000	USD 150
Additional page charge**	Nil	Nil
Conference kit and print proceedings***	Rs. 2,000	USD 100

The registration fee includes the PUBLICATION FEE for IOP: Materials Science and Engineering.

Registration is per paper not per author. One full registration covers participation and e-certificates for all authors along with e-proceedings. More than one authors can be allowed under "Listener" category.

\*For additional author participation | \*\*Presentation and publication in print proceedings with ISBN only | \*\*\*No page limit

\*\*\*one conference kit, proceedings, conference complements and participation ticket for one author during the conference.

## Contact details

Mobile & WhatsApp

(+91) 97894 89103

E-mail

[gc-rdct@ajiet.edu.in](mailto:gc-rdct@ajiet.edu.in)

Website

[www.gc-rdct.com](http://www.gc-rdct.com)



The book of proceedings of GC-RDCT 2021 with all the accepted papers will be published in the following IOP Conference Series

**IOPscience**  
Materials Science and Engineering  
A Conference Proceedings Journal

## Indexing and Abstracting

The book of proceedings of GC-RDCT 2020 will be indexed in

Conference Proceedings Citation Index – Science (CPCI-S)  
(Thomson Reuters, Web of Science)

EI - Compendex

EX Libris Primo

Inspec

Chemical Abstracts Service

INIS (International Nuclear Information System)

NASA Astrophysics Data System

SPIRES

VINITI Abstracts Journal (Referativnyi Zhurnal)

## Important dates

Last date for paper submission	15, June 2022
Notification of acceptance	25, June 2022
Registration commencement	05, May 2022
Registration deadline	05, July 2022
Camera Ready Paper (CRP) submission	05, July 2022
Conference date(s)	29 - 30, July 2022

Publications

## Organizer



Department of Computer Science and Engineering  
Department of Information Science and Engineering  
Department of Electronics and Communication Engineering  
**A. J. Institute of Engineering and Technology**  
Mangalore, Karnataka, India

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Second Global Conference on  
**Recent Developments in Computer and Communication Technologies**  
**(GC-RDCT 2022)**

28 - 29, July 2022 | Mangalore, India | [www.gc-rdct.com](http://www.gc-rdct.com)

**Program Schedule**

Date	Time	Event
28.07.2022	09.30 am to 10.00 am	Inaugural Function
28.07.2022	10.00 am	Keynote 1
28.07.2022	10.45 am	Keynote 2
		Session: <b>PHY</b> (Offline)
28.07.2022	11.30 am to 05.15pm	Session: <b>CS01</b> (Online)
		Session: <b>EC01</b> (online)
		Session: <b>ME01</b> (online)
29.07.2022	10.00 am	Keynote 3
29.07.2022	10.30 am to 04.00 pm	Session: <b>CS02</b> (online)
		Session: <b>EC02</b> (online)
		Session: <b>EE01</b> (online)

CS-Computer Science & Information Technology

EE- Electrical Engineering& Applied Physics

EC - Electronics Engineering

ME -Mechanical Engineering

Note:

1. Start time given above indicates Indian Standard Time (IST).
2. Presentation will be conducted using Google Meet.
3. Participants can join their respective sessions by clicking the meet link given
4. Mode of presentation should be powerpointpresentation(ppt or pptx)
5. Duration of presentation: 10 minutes (presentation) + 5minutes(Queries)
6. Participant using Google Meet will be admitted at any time prior to their scheduled time.
7. Participants are requested to follow the scheduled time; especially regarding the time for your talk.
8. Participants are requested to contact the respective session In-Charges for presentation related queries.
9. If any problem connecting to session, please text to the respective session In-Charges (Or)GC-RDCT Whatsapp group during presentation date(s).

**Session: PHY (Physical session)**

Date: 28.07.2021

Time: 11.30 am to 05.00 pm

Session In-charge: Will be added

Venue:Seminar Hall

Paper ID	Title
22RDCT 3010	Processing and tribologicalbehaviour of carbon fiber reinforced polylactic acid composites

**Session: CS 01**

Date: 28.07.2021

Time: 11.30 am to 05.00 pm

Session In-charge : Mrs. Sharanya P S

Session in-charge Contact Number : +91 81057 63404

**Google Meet ID/Link** : <https://meet.google.com/zeh-idab-qju>

Time	Paper ID	Paper Title
11.30 am	22RDCT 2016	Bi-LSTM-LDA– A Topic Modelling Technique to Identify the Relevant Law for Indian Legal Cases
11.50 am	22RDCT 2017	A Survey on Automatic Plant Recognition Approaches
12.10 pm	22RDCT 2021	Intelligent Crop Recommendation with Yield Prediction using Dragonfly Algorithm Based Deep Learning Model
12.30 pm	22RDCT 2022	Data Quality Assessment Using Benfords Law and Excel
02.00 pm	22RDCT 2034	LoRa-based IoT Applications on Campus: Experimental Demonstrations and Performance Evaluation
02.20 pm	22RDCT 2035	Scheduling in LoRa Gateways for Packet Loss Reduction
02.40 pm	22RDCT 2053	Types of attacks in application layer used in various applications – An overview
03.00 pm	22RDCT 2096	A smart resume screening tool for customized shortlisting
03.20 pm	22RDCT 3016	Classification of depression on social media using Distant Supervision
03.40 pm	22RDCT 3017	Cryptography using Automata Theory
04.00 pm	22RDCT 3023	Crowd Density Estimation Using Deep Learning Techniques
04.20 pm	22RDCT 3025	Review on Automatic Diagnosis of Autism Spectrum Disorders using Multi-Atlas Graph Convolutional Networks and Ensemble Learning
04.40 pm	22RDCT 3054	A Software Development Lifecycle Case Study on : Diet Recommendation System based on User Activities

**Session: EC 01**

Date: 28.07.2021

Time: 11.30 am to 05.15 pm

Session In-charge : Mr. Vijaykumar Dudhanikar

Session in-charge Contact Number : +91 9880129398

**Google Meet ID/Link** : <https://meet.google.com/ajz-dxpp-vmk>

Time	Paper ID	Paper Title
11.30 am	22RDCT 2019	Generation of Pulse Sequence using EMG Signals for Application in Transfemoral Prosthesis
11.50 am	22RDCT 2025	DUAL BAND-NOTCHED ANTENNA DESIGN USING COMPOSITE RIGHT/ LEFT HANDED METAMATERIAL
12.10 pm	22RDCT 2037	Design of low cost IoT enabled greenhouse control system for precision agricultural research application
12.30 pm	22RDCT 2045	Design Of Microstrip Patch Antenna for 5G Mobile Communication
02.00 pm	22RDCT 2048	Optimization of Circularly Polarized Wideband Microstrip Antenna Using Machine Learning
02.20 pm	22RDCT 2059	Design of SIW based Frequency Reconfigurable Antenna for K/Ku band applications
02.40 pm	22RDCT 2068	Design of a Radiation Pattern Reconfigurable Leaky Wave Antenna
03.00 pm	22RDCT 2077	Performance comparison of channel coding techniques for OFDM systems
03.20 pm	22RDCT 2091	64 Bit Binary Counter with Minimal Clock Period
03.40 pm	22RDCT 2092	Design of Two Stage OTA based Sixth Order Butter- worth Low Pass Filter using CMOS 180nm Technology
04.00 pm	22RDCT 2094	A Spear-head shaped UWB MIMO Antenna with triple notch-based characteristics for Wireless applications
04.20 pm	22RDCT 2097	Traffic Signboard Recognition and Text Translation System using Word Spotting and Machine Learning
04.40 pm	22RDCT 2099	Brain Tumor Localization using Deep Learning
05.00 pm	22RDCT 3008	Monitoring and Control of Process Parameters inPalmJaggery Production

**Session: ME 01**

Date: 28.07.2021

Time: 11.30 am to 05.00 pm

Session In-charge : Mr. Rakesh M. R.

Session in-charge Contact Number : +91 9731582542

**Google Meet ID/Link** : <http://meet.google.com/mxu-gexr-qeu>

Time	Paper ID	Paper Title
11.30 am	22RDCT 2007	A comprehensive overview of the use of integrated sensory technology in Dimensional Metrology inspection
11.50 am	22RDCT 2055	Pipe inspection Robot: a review
12.10 pm	22RDCT 2056	Combustion studies on eco-friendly ground fireworks
12.30 pm	22RDCT 2088	Study of active magnetic bearings (AMB) on non-synchronous rotors
02.00 pm	22RDCT 3037	Magnification of energy transmission ratio using miniature cycloidal gear box for humanoids
02.20 pm	22RDCT 3069	Design and analysis of energy efficient wind turbine blades
02.40 pm	22RDCT 3075	Tensile and thermal behavior of linear low-density polyethylene nanocomposite films
03.00 pm	22RDCT 4004	Influence of Different Parameters on the Specific Wear Rate of PTFE Composites in the Steam Environment
03.20 pm	22RDCT 4031	Review on Automation Using Machine Vision System for Inspection of Mechanical Parts
03.40 pm	22RDCT 4034	Edge Blending to Enhance the Flow over Double delta wing configuration during re-entry
04.00 pm	22RDCT 4049	Smart storage box for aligners
04.20 pm	22RDCT 4094	Study of LCF behaviour and life estimation based on modified SWT model and enhanced strain energy density of Ti-6Al-4V ELI

**Session: CS 02**

Date: 29.07.2021

Time: 10.30 am to 04.00 pm

Session In-charge : Mr. John Prakash Veigas

Session in-charge Contact Number : +91 9482038836

**Google Meet ID/Link** : <https://meet.google.com/wbt-sope-ydr>

Time	Paper ID	Paper Title
10.30 am	22RDCT 3078	Software Controller using hand Gestures
10.50 am	22RDCT 3082	Comparison of performance of machine learning algorithms for diabetes detection
11.10 am	22RDCT 3095	Diagnosis of Maize Leaf Diseases Using Pre-Trained Convolutional Neural Networks: A Comparative Survey
11.30 am	22RDCT 4017	Blockchain-Based Land Record System
11.50 am	22RDCT 4026	Multivariate Adaptive Regression Splines (Earth) Applied to Software Development Effort Estimation
12.10 pm	22RDCT 4046	Security Of Medical Data Using Paillier And Elgamal Encryption And Decryption
12.30 pm	22RDCT 4050	A Deep CNN based Diagnostic Model for detection of COVID-19 from CT Scan Images
12.50 pm	22RDCT 2052	Optimization-based feature selection and categorization using correlation coefficients for the nephrotic disease
02.00 pm	22RDCT 4055	Transfer Learnt Antispoof(TLA) Framework for FaceBiometric System
02.20 pm	22RDCT 4058	Chat Application Using Homomorphic Encryption
02.40 pm	22RDCT 4063	Image Deconvolution using Deep learning-based Adams Optimizer
03.00 pm	22RDCT 4064	Supervised Learning System for Pest Disease Identification and Recommendations using Wireless Sensor Network in Agriculture Domain
03.20 pm	22RDCT 4077	Online Donation System using Full stack Development
03.40 pm	22RDCT 4082	Emotion aware Tamil speech synthesizer for dysarthric speakers

**Session: EC 02**

Date: 29.07.2021

Time: 10.30 am to 04.00 pm

Session In-charge : Mr.Vinayak G Pai

Session in-charge Contact Number : +91 9535011938

Google Meet ID/Link : <https://meet.google.com/fws-dwhf-nbu>

Time	Paper ID	Paper Title
10.30 am	22RDCT 3020	Heart Disease Prediction System
10.50 am	22RDCT 3021	Design and Analysis of SRAM cell Using Sleep Transistor and GALEOR Technique
11.10 am	22RDCT 3022	Multilayer Cylindrical Dielectric Resonator Antenna for Millimeter Wave 5G Application
11.30 am	22RDCT 4009	An IP core of AMBA bus interface in HDL
11.50 am	22RDCT 4016	Advanced Single Chip Array Implementation in FPGA Using Advanced Encryption Standard Algorithm
12.10 pm	22RDCT 4035	Performance Analysis of Two-Bit Comparator using Transmission Gate
12.30 pm	22RDCT 4045	A FPGA Implementation of Enhanced Montgomery Modular For Fast Multiplication
02.00 pm	22RDCT 4084	Effect of Underwater Parameters on Two-Terminal Reliability Analysis of Underwater Acoustic Sensor Network in Shallow Water
02.20 pm	22RDCT 4087	Design and Performance Improvement of 10T SRAM Using Sleepy Keeper and Drain Gating Techniques
02.40 pm	22RDCT 4095	Prediction of Diabetic Retinopathy in fundus imaging with CNN visualisation model MobileNetV2
03.00 pm	22RDCT 4097	Design of Improved Band Gap Reference Circuit for CS-VCO Application Using 180nm CMOS Technology
03.20 pm	22RDCT 3019	Insights into the Recent Advances in Nanomaterial Based Electrochemical Sensors for Pesticides in Food
03.40 pm	22RDCT 4048	Structural, Dielectric and Ferroelectric Characterizations of Sol-gel derived Strontium Doped Barium Titanate Nanoceramics

**Session: EE 01**

Date: 29.07.2021

Time: 10.30 am to 04.00 pm

Session In-charge : Mrs. Vishmitha S. Shetty

Session in-charge Contact Number : +91 9743702278

Google Meet ID/Link : <https://meet.google.com/yim-cceq-zfx>

Time	Paper ID	Paper Title
10.30 am	22RDCT 2011	Performance Analysis of Five level CHBMLI by LSPWM & PSPWM Modulation Technique
10.50 am	22RDCT 2012	LMS Adaptive FIR Filter-Predictive controller based on d-q control theory for Grid Connected Solar PV system
11.10 am	22RDCT 2042	Implementation and Validation of Smart sensors for Smart Grid
11.30 am	22RDCT 2043	A Cascaded Multilevel Inverter design based Harmonic Optimization using TLBO Algorithm for Wind Energy System
11.50 am	22RDCT 2062	Simulation of Harmonics Response of Shunt Active Power Filter using Feed Forward Neural Network
12.10 pm	22RDCT 3035	Hybrid Electric Vehicle Design and Simulation Performance Using Isolated DC/DC Converter Based MFO Algorithm
12.30 pm	22RDCT 5001	Safety Analysis For Fast Breeder Reactor
02.00 pm	22RDCT 5002	Advanced Safety Programmable Logic Controller And Operational Programmable Logic Controller For Data Acquisition Control System Of SADHANA Sodium Loop
02.20 pm	22RDCT 2030	Preparation of Ni <sup>2+</sup> and Co <sup>2+</sup> doped lithium based Ferrites by chemical sol-gel method and characterization of the electromagnetic properties
02.40 pm	22RDCT 2057	Evaluation of dipole moments of indole derivative (5-MPIC) by Solvatochromic shift method
03.00 pm	22RDCT 2063	To Study Structure Characterization and Rietveld Refinement of CoNa[Fe(CN) <sub>4</sub> ] Nano Composite prepared with Coprecipitation technique
03.20 pm	22RDCT 4032	Trace arsenic quantification by hydride generation-flame atomic absorption spectrometry: nanocellulose as solid-phase extraction biosorbent for preconcentration
03.40 pm	22RDCT 4040	Investigation of Dielectric Spectroscopy of Tellurium (Te) doped Bismuth Antimony (BiSb) pellet



# AJ INSTITUTE OF ENGINEERING & TECHNOLOGY

A Unit of Laxmi Memorial Education Trust

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgaavi)

NAME OF THE EVENT:	Second Global Conference on Recent Developments in Computer and Communication Technologies (GC-RDCT 2022)
ORGANISING DEPARTMENT / COMMITTEE :	Department of Information Science & Engineering, Department of Computer Science & Engineering, Department of Electronics & Communication Engineering.
DATE :	29-07-2022 and 30-07-2022
NAME OF THE RESOURCE PERSON :	Keynote 1 – 28-07-2022 <b>Dr. V.N Mani</b> Scientist-E, Head, High Pure Electronic Materials, Devices & Systems Development Division Centre for Materials for Electronics Technology(C-MET) Department of Electronics & Information Technology, Govt. of India  Keynote 2 – 28-07-2022 <b>Dr. Dattatraya Narayan Gaonkar</b> Department of Electrical and Electronics Engineering, National Institute of Technology Karnataka Surathkal (NITK)  Keynote 3 – 29-07-2022 <b>Mohamad Nur Khairul Hafizi Rohani</b> Senior Lecturer and the Program Chairperson of the Diploma of Electrical Engineering Universiti Malaysia Perlis  Keynote 4 – 29-07-2022 <b>Syahrin Nizam Md Arshad</b> Senior Lecturer at Faculty of Electrical Engineering Technology, UniMAP and Head of High Voltage and Transient (HVTrans) Research Group. Universiti Malaysia Perlis
REGISTRATION DETAILS :	Total manuscripts received: 304 Total manuscripts accepted: 128 Total papers registered: 80 No. of foreign registrations: 03 Foreign countries in GC-RDCT 2022: 02 AUSTRALIA, VIETNAM
Conference Proceedings Link:	

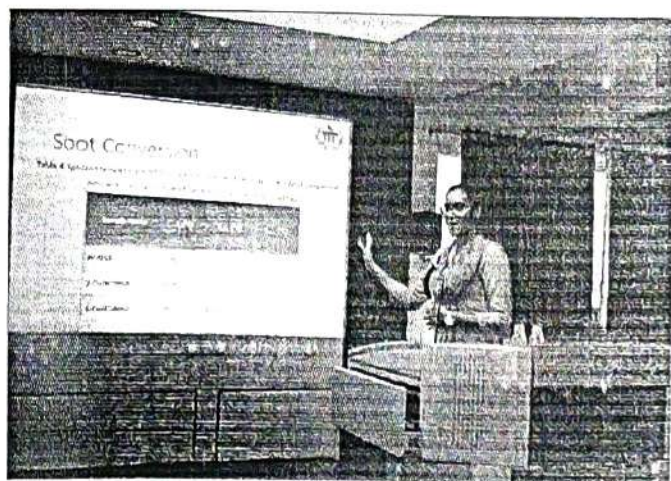
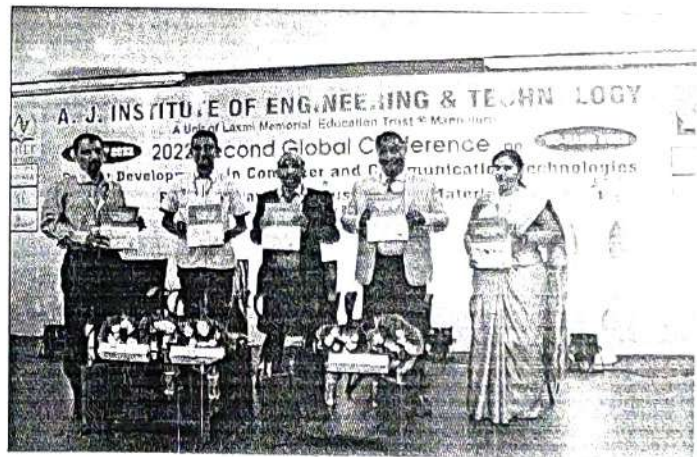
A two day Second Global Conference on Recent Developments in Computer and Communication Technologies (GC-RDCT 2022) was inaugurated on 28-07-2022 in Seminar Hall-1 at AJIET Campus. The inaugural function started by 9.35 a.m. and the delegates were escorted to dais by Chief convener of GC-RDCT 2021 Dr. Kiran Kumar V.G. and Chief convener of GC-RASM 2021 Dr. Sangeetha D.M. The Guest of the function was Dr. Mani V.N., Scientist, C-MET, Telangana., Guest of Honor was Dr. Thangaprakash S, Director, Diligentec Solutions, Coimbatore and the function was presided was Dr. Shantharama Rai C., Principal, AJIET, Mangalore. Ms. Tanishka and Aishwarya evoked the blessings almighty with a prayer song. Dr. Sangeetha D.M. welcomed the gathering and Dr. Kiran Kumar V.G. gave a brief introduction about the chief guest and Guest of honor of the event.

Dr. Thangaprakash S. briefed about the conference followed by the releasing of the conference proceedings by the dignitaries on the dias. Chief Guest of the Program Dr. Mani V N., delivered address to the gathering. Presidential address was delivered by Principal Dr. Shatharama Rai C. Vote of Thanks was delivered by R&D member Prof. John Prakash Veigas.

Day 1 28.7.2022- The program started with Keynote session 1 at 10.30 a.m., followed by keynote session 2 at 11.30 a.m. Altogether around 04 parallel sessions started by 12.15 p.m. out of which 03 sessions were held virtually using Google meet platform and 01 physical sessions.

Day 2- 29.7.2022: Keynote session 3 started by 9.30a.m. followed by Keynote session 4 at 10.00 a.m. Thereafter Three (03) parallel sessions were started simultaneously by 10.30 a.m.

Valedictory: In the evening by 4.00 p.m. valedictory session was held virtually via Google Meet. Dr. Kiran Kumar V G. welcomed the gathering. Principal Dr. Shantharama Rai C., delivered the presidential address. Dr. Thangaprakash S., delivered Valedictory Speech. Few researchers and Session chairs shared their valuable feedbacks. Dr. Thangaprakash S., shared the concluding remarks of the conference followed by Vote of thanks by Dr. Sangeetha D.M. The session concluded by 4.30p.m.





  
CONVENOR

CC To:

1. President, LMET,
2. Vice President, LMET

  
A.J. Institute of <sup>Principal</sup> **PRINCIPAL** & Technology  
Mangalore - 575 005