



Kongunadu

College of Engineering & Technology
[Autonomous]

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai, Accredited by NBA(CSE,ECE,EEE),
Accredited by NAAC with B++ Grade, Recognized by UGC with 2(f) & 12(B) and ISO 9001:2015 Certified Institution)

Namakkal - Trichy Main Road, Tholurpatti (P.O.), Thottiyam (TK), Trichy (Dt.) - 621 215.

DEPARTMENT OF INFORMATION TECHNOLOGY

BITWHACKERS NEWSLETTER

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COLLEGE VISION / MISSION

VISION

"To become an Internationally renowned Institution in technical education, research and development, by transforming the students into competent professionals with leadership skills and ethical values."

MISSION

- ❖ Providing the Best Resources and Infrastructure.
- ❖ Creating Learner centric Environment and continuous -Learning.
- ❖ Promoting Effective Links with Intellectuals and Industries.
- ❖ Enriching Employability and Entrepreneurial Skills.
- ❖ Adapting to Changes for Sustainable Development

DEPARTMENT VISION/MISSION

VISION

To produce competent IT and software professionals with entrepreneurial attitudes for successful software organizations/ventures.

MISSION

- Enrich the students' programming and computing skills through best teaching-learning processes, laboratory practices and through project-based learning.
- Inculcate real world challenges, emerging technologies and endeavor the students to become entrepreneurs or make them employable.
- Inculcating moral and ethical values to serve the society and focus on students' overall development.

PROGRAM EDUCATIONAL OBJECTIVES

- **PEO I :** Graduates shall become IT professionals with specialization in Software Engineering, Networking, Data Mining and Cloud computing.
- **PEO II :** Graduates shall build IT solutions through analysis, design and development of software and firmware solutions for real-world problems and social issues.
- **PEO III :** Graduates shall have professional ethics, team spirit, life-long learning, good oral and written communication skills and adopt corporate culture, core values and leadership skills.

PROGRAM SPECIFIC OUTCOMES (PSO's)

- ❖ **PSO 1 : Professional skills :** Students shall understand, analyze and develop IT applications in the field of Data Mining/Analytics, Cloud Computing, Networking etc., to meet the requirements of industry and society.
- ❖ **PSO 2 : Competency :** Students shall qualify at the State, National and International level competitive examination for employment, higher studies and research.

PROGRAMME OUTCOMES (POS):

PO 1. Engineering Knowledge : Apply the knowledge of mathematics, science, engineering fundamentals, and engineering Specialization to the solution of complex engineering problems.

PO 2. Problem Analysis : Identify, formulate, research literature, and analyze engineering problems to arrive at substantiated conclusions using first principles of mathematics, natural, and engineering sciences.

PO 3. Design/development of solutions : Design solutions for complex engineering problems and design system components, processes to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4. Conduct investigations of complex problems : Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5. Modern tool usage : Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6. The engineer and society : Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7. Environment and sustainability : Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.

PO 8. Ethics : Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9. Individual and team work : Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.

PO 10. Communication : Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.

PO 11. Project management and finance : Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.

PO 12. Lifelong learning : Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Department Activities

Program Conducted by the Department (Conference/Workshop/Seminar/Symposium/FDP/Value Added Course/Guest Lecture/Training/Others)

Online workshop titled 'Artificial Intelligence with Teachable Machine-2021' was organized on 29th & 30th Oct 2021. The chief guest was Mr.R.Baskar, Robotics Instructor, Rancho Labs (by New Delhi IITians), IIT Campus, New Delhi.

Webinar titled 'Trending Skills for IT Employability-2021' was organized on 23rd Oct 2021. The chief guest was Mr.Harishankher Selvaraj, Lead-Talent Acquisition, Codingmart Technologies, Bangalore.

Webinar titled 'Software Defined Network-2021' was organized on 9th Oct 2021. The chief guest was Mr.S.Tamilvalavan, CEO & Co-founder, Spinspider Technology, Trichy.

Webinar titled 'Artificial Intelligence for Beginners-2021' was organized on 10st Oct 2021. The chief guest was Mr.R.Baskar, Robotics Instructor, Rancho Labs (by New Delhi IITians), IIT Campus, New Delhi.

Webinar titled 'Automated Software Testing-2021' was organized on 25th Sep 2021. The chief guest was Mr.Manivasagan, Team Lead, Cognizant Technology Solutions, Chennai.

Webinar titled 'Digital Marketing-2021' was organized on 18th Sep 2021. The chief guest was Mr.A.Joemoan Tom, Team Leader-Presales, Byjus, Chennai.

Webinar titled '.Net Framework-2021' was organized on 4th Sep 2021. The chief guest was Mr.J.Suresh, Technical Lead, Sutherlandglobal Service Pvt. Ltd, Bangalore.

Webinar titled 'Smart Automation Testing using Java-2021' was organized on 28th Aug 2021. The chief guest was Ms.S.Pavithra, Software Trainee, Episource India Pvt. Ltd., Coimbatore.

Webinar titled 'Software Project Architecture-2021' was organized on 19th Aug 2021. The chief guest was Mr.Suriaprakash Chellappa, Programmer Analyst, iLink Digital, Inc., Torrance, California, USA.

Webinar titled 'Software Testing-2021' was organized on 14th Aug 2021. The chief guest was Mr.P.V.Harish, Senior Software Engineer, EPAM, Hyderabad.

Webinar titled 'Machine Learning Algorithm with Python Packages-2021' was organized on 7th Aug 2021. The chief guest was Dr.S.S.Aravinth, Ph.D, Associate Professor, Department of CSE, KL University, Vijayawada.

Webinar titled 'My Sql Database Administration and Cloud Services-2021' was organized on 23rd Jul 2021. The chief guest was Mr.Ramalingam Rajendran, Engineer, Database Administration, Mindtraa Ltd. Chennai.

Webinar titled 'Software Quality Assurance and Quality Control-2021' was organized on 17th Jul 2021. The chief guest was Mr.R.Prasanth, Sr. Engineer, Vanek Technology Pvt. Ltd., Coimbatore.

Webinar titled 'Gear up with Cloud-2021' was organized on 10th Jul 2021. The chief guest was Ms.Mouliya Manoharan, Systems Engineer, Infosys Pvt. Ltd, Mahindra city, Chennai.

Webinar titled 'Opportunities After Engineering through Gata, ESE & PSU-2021' was organized on 10th Jul 2021. The chief guest was Ms.Mouliya Manoharan, Systems Engineer, Infosys Pvt. Ltd, Mahindra city, Chennai.

Webinar titled 'Evolve 2 Revolve-2021' was organized on 19th June 2021. The chief guest was Ms.Sumetha Jeevaa, Program Analyst Trainee, Cognizant Technology Solutions, Chennai.

Webinar titled 'Data Science-2021' was organized on 03th June 2021. The chief guest was Dr.J.T.Thirukrishna, Ph.D, Associate Professor/ISE, Dayananda Sagar Academy of Technology and Management, Bangalore.

Department Achievements:

ATAL FDP Participation

Mr.N.Premkumar ASP, of Information Technology department attended ATAL FDP on 'Artificial Intelligence in Teaching and Learning' held at Central University of Tamil Nadu from 22nd to 26th Nov 2021.

Mr.R.Palani Kumar, AP of Information Technology department attended ATAL Faculty Development Programme on 'Implementation of IOT Devices with Node-Red Interfacing IBM Watson' held at Vaagdevi College of Engineering, Telangana on 08th to 12th November 2021.

Mr.P.DineshKumar, AP of Information Technology department attended ATAL Faculty Development Programme on 'Next-Generation Applications of Artificial Intelligence and Machine Learning for Smart IOT Applications (NxGA-AIM 2021)' held at New Horizon College of Engineering, Bangalore from 18th October to 22nd October 2021.

Mr.P.DineshKumar, AP of Information Technology department attended ATAL Faculty Development Programme on 'Emerging Research Advances and Trends in Intelligent Knowledge Engineering Systems' held at SAI Ram Institute of Technology, Chennai from 30th September to 06th October 2021.

Mr.P.Dinesh Kumar, AP of Information Technology department attended ATAL Faculty Development Programme on 'Data Science and Artificial Intelligence in Chemical Engineering trends and Future Outlook' held at MVJ College of Engineering, Bangalore from 31st August to 12th 04th September 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended ATAL FDP on 'Internet of Things in Smart Cities' held at Kongunadu College of Engineering and Technology, Trichy from 20th September 2021 to 24th September 2021.

Mr.G.Karthik AP, of Information Technology department attended ATAL FDP on 'Internet of Things in Smart Cities' held at Kongunadu College of Engineering and Technology from 20th to 24th Sep 2021.

Mr.N.Premkumar ASP, of Information Technology department attended ATAL FDP on 'Internet of Things in Smart Cities' held at Kongunadu College of Engineering and Technology from 20th to 24th Sep 2021.

Dr.R.Sathya, AP, of Information Technology department attended ATAL FDP on 'Internet of Things in Smart Cities' held at Kongunadu College of Engineering and Technology, Trichy from 20th September 2021 to 24th September 2021.

Mr.P.Dineshkumar, AP, of Information Technology department attended ATAL FDP on Data Science and Artificial Intelligence in Chemical Engineering: Recent Trends held at MVJ College of Engineering, Bangalore from 31st Aug 2021 to 4th Sep 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended ATAL FDP on 'Machine Learning and Computer Vision' held at Vignans Foundation for Science Technology and Research University, Andhra Pradesh from 5th August 2021 to 9th August 2021.

Dr.R.Sathya, AP, of Information Technology department attended ATAL FDP on 'Machine Learning and Computer Vision' held at Vignans Foundation for Science Technology and Research University, Andhra Pradesh from 5th August 2021 to 9th August 2021.

Mr.S.Saravanan, AP of Information Technology department attended five days ATAL FDP on 'IoT Applications with Blockchain Techniques' held at National Institute of Technology Meghalaya from 17th to 21st July 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended FDP (ATAL) on 'Recent Trends in Cyber Security Domain' held at Manonmaniam Sundaranar University from 05th to 9th Jul 2021.

Mr.S.Simonthomas, AP of Information Technology department attended five days ATAL FDP on Human Factors in Software Design held at IIITDM Kancheepuram from 21st to 25th June 2021.

Mrs.M.Mythili, AP of Information Technology department attended five days ATAL FDP on Role of Augmented Reality (AR) & Virtual Reality (VR) in Real - Time Applications held at Karunya Institute of Technology and Sciences from 07th to 11th June 2021.

Other FDP Participation

Mr.J.Sathishkumar, AP, Information Technology attended AICTE Faculty Development Programme on 'Artificial Intelligence in Teaching and Learning' held at Central University of Tamilnadu from 22nd November to 26th November 2021.

Mr.N.Premkumar, ASP, Information Technology attended AICTE Faculty Development Programme on 'Artificial Intelligence in Teaching and Learning' held at Central University of Tamilnadu from 22nd November to 26th November 2021.

Mr.J.Sathishkumar, AP, Information Technology attended Faculty Development Programme on 'Teaching Learning Research & Innovation' held at Roever Engineering College, Perambalur on 29th October 2021 & 30th October 2021.

Mrs.M.Mythili, AP, Information Technology attended Faculty Development Programme on 'Teaching Learning Research & Innovation' held at Roever Engineering College, Perambalur on 29th October 2021 & 30th October 2021.

Mr.R.Palani Kumar, AP of Information Technology department attended Faculty Development Programme on 'Teaching Learning Research & Innovation' held at Rover Engineering College, Perambalur on 29th October 2021 & 30th October 2021.

Dr.R.Sathya, AP, of Information Technology department attended FDP on 'Enlightening Strategic Management' held at Anwarul Uloom College of Business Management, Telangana on 27th October 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended FDP on 'Enlightening Strategic Management' held at Anwarul Uloom College of Business Management, Telangana on 27th October 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended FDP on 'Wipro Certified Trainer' held at WIPRO (Talent Next) from 04th October 2021 to 22nd October 2021.

Dr.R.Sathya, AP, of Information Technology department attended FDP on 'Introduction to Python Programming (online live FDP)' held at ICT Academy from 27th September 2021 to 1st October 2021.

Mr.P.Dineshkumar, AP, of Information Technology department attended FDP on Emerging Research Advances & Trends in Intelligent Knowledge Engineering Systems held at SAI Ram Institute of Technology, Chennai from 30th September 2021 to 6th October 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended FDP on 'Cyber Security & Digital Forensics' held at Rajiv Gandhi National Cyber Law Centre, Bhopal from 21st September 2021 to 25th September 2021.

Dr.R.Sathya, AP, of Information Technology department attended FDP on 'Research Methodologies – Application of Statistical Tools for Decision Making' held at Marudhar Kesarijain College for Women Vaniyambadi on 12th July 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended FDP on 'Role of Machine Intelligence for Information Retrieval' held at GMR Institute of Technology, Rajam from 06th July 2021 to 11th July 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended FDP on 'Technological Leadership for Inclusive Digital Society' held at Sikkim Manipal Institute of Technology, Sikkim from 1st June 2021 to 5th June 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended FDP on 'Research Methodologies – Application of Statistical Tools for Decision Making' held at Marudhar Kesarijain College for Women Vaniyambadi on 12th July 2021.

Mrs.M.Mythili, AP of Information Technology department attended Faculty Development Programme on 'Emerging Research Trends in the field of Computer Science' held at Easwari Engineering College on 28th June 2021 to 03rd July 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended Faculty Development Programme on Intelligent Systems For Sustainable Development held at St.Peter's Engineering College, Hyderabad from 08th June 2021 to 12th June 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended FDP on 'Creative Thinking (Online Live FDP)' Conducted by ICT Academy from 7th June 2021 to 11th June 2021.

Mr.R.Palani Kumar, AP of Information Technology department attended Faculty Development Programme on 'Inculcating Universal Human Values in Technical Education' held at All India Council for Technical Education (AICTE) from 31th May 2021 to 04th June 2021.

Mr.S.Simonthomas, AP of Information Technology department attended Faculty Development Programme on 'Inculcating Universal Human Values in Technical Education' held at All India Council for Technical Education (AICTE) from 31st May 2021 to 04th June 2021.

Mr.N.Premkumar, ASP of Information Technology department attended Faculty Development Programme on 'Inculcating Universal Human Values in Technical Education' held at All India Council for Technical Education (AICTE) from 31st May 2021 to 04th June 2021.

Mr.S.Saravanan, AP of Information Technology department attended five days FDP on 'Technological Leadership For Inclusive Digital Society' held at Sikkim Manipal Institute of Technology from 01st June 2021 to 5th June 2021.

Mrs.M.Mythili, AP of Information Technology department attended Faculty Development Programme on 'Inculcating Universal Human Values in Technical Education' held at All India Council for Technical Education (AICTE) from 31st May 2021 to 04th June 2021.

Workshop Participation

Dr.K.Muthumanickam, ASP of Information Technology department attended DRDO sponsored workshop on 'Recent Trends in Underwater Communications' held at Shri Vishnu Engineering College For Women, Bhimavaram, from 25th November 2021 to 27th November 2021.

Mr.R.Palani Kumar, AP of Information Technology department attended DRDO sponsored workshop on 'Recent Trends in Underwater Communications' held at Shri Vishnu Engineering College For Women, Bhimavaram, from 25th November 2021 to 27th November 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended training programme on 'Java - Wipro Certified Faculty Program' held at TalentNext, Wipro from 04th October 2021 to 22th October 2021.

Mr.R.Palani Kumar, AP of Information Technology department attended training programme on 'Java - Wipro Certified Faculty Program' held at TalentNext, Wipro from 04th October 2021 to 22th October 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended training programme on 'Java - Wipro Certified Faculty Program' held at TalentNext, Wipro from 04th October 2021 to 22th October 2021.

Dr.R.Sathya, AP, of Information Technology department attended Workshop on 'Ideation, Innovation, Incubation & Entrepreneurship' held at Swami Keshvanand Institute of Technology, Jaipur from 12th August 2021 to 14th August 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended Workshop on 'Ideation, Innovation, Incubation & Entrepreneurship' held at Swami Keshvanand Institute of Technology, Jaipur from 12th August 2021 to 14th August 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended Workshop on 'Data Visualization using Tableau' held at Sathyabama Institute of Science and Technology, Chennai From 14th to 16th July 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended Workshop on 'Entrepreneurship and Challenges - 2021' held at Sharda University, Greater Noida from 12th July 2021 to 16th July 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended Workshop on 'Industry 4.0' held at Sri Sivasubramaniya Nadar College of Engineering Kalavakkam on 10th July 2021.

Dr.R.Sathya, AP, of Information Technology department attended Workshop on 'CS 8391-Data Structures' held at R.M.K Engineering College, Kavaraipettai from 21st June 2021 to 26th June 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended Workshop on 'Machine Learning for Electrical Engineers' held at SRM TRP Engineering College, Irungalur on 18th June 2021.

Dr.R.Sathya, AP, of Information Technology department attended Workshop on 'Machine Learning for Electrical Engineers' held at SRM TRP Engineering College, Irungalur on 18th June 2021.

Mr.S.Simonthomas, AP, of Information Technology department attended Workshop on 'Machine Learning for Electrical Engineers' held at SRM TRP Engineering College, Irungalur on 18th June 2021.

Mr.S.Saravanan, AP of Information Technology department attended Workshop on 'Elsevier Author Workshop: Fundamentals of Research Article Writing' conducted by Researcher Academy on 04th June 2021.

Webinar/Seminar Participation

Dr.R.Sathya, AP, of Information Technology department attended Webinar on 'MOOC's & e-Content Development' held at Banaras Hindu University, Varanasi, Uttar Pradesh on 25th October 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended Webinar on 'MOOC's & e-Content Development' held at Banaras Hindu University, Varanasi, Uttar Pradesh on 25th October 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended a Webinar on 'Big Data Engineering' held at Bharath Institute of Higher Education and Research on 06th October 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended a Webinar on 'Advance Artificial Intelligence Techniques with MATLAB - applications and challenges in Industry 4.0' held at Design Tech. on 24th September 2021 & 25th September 2021.

Mr.N.Premkumar, ASP of Information Technology department attended a Webinar on Science-Engineering-Technology Synergy for Sustainable Growth held at SRM University on 25th September 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended a Webinar on 'Intellectual Property Rights for Startups' held at Puducherry Technological University, Puducherry on 18th September 2021.

Dr.R.Sathya, AP, of Information Technology department attended Webinar on 'Machine Learning Techniques using Python' held at Kongunadu College of Engineering and Technology, Thottiam on 26th August 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended Webinar on 'Machine Learning Techniques using Python' held at Kongunadu College of Engineering and Technology, Thottiam on 26th August 2021.

Mrs.M.Mythili, AP, of Information Technology department attended Webinar on 'Machine Learning Techniques using Python' held at Kongunadu College of Engineering and Technology, Thottiam on 26th August 2021.

Mr.N.Premkumar, ASP of Information Technology department attended a Webinar on Distributed Robotics Platforms and Consensus held at Bhubaneswar Institute of Technology, Bhubaneswar on 7th Aug 2021.

Mr.S.Simonthomas, AP, of Information Technology department attended Webinar on Introduction to Data Science, Machine Learning & Deep Learning held at St. Joseph's Institute of Technology, Chennai on 27th July 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended a Webinar on 'Introduction to Patents and patent Filing Procedure in India' held at Annamacharya Institute of Technology & Science, Rajampet on 09th Jul 2021.

Dr.R.Sathya, AP, of Information Technology department attended Seminar on 'Network Security and Cryptography' held at SRM Institute of Science and Technology, Chennai on 26th June 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended Seminar on 'Network Security and Cryptography' held at SRM Institute of Science and Technology, Chennai on 26th June 2021.

Dr.R.Sathya, AP, of Information Technology department attended Webinar on 'IoT Architecture' held at Nehru Institute of Engineering and Technology, Coimbatore on 21st June 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended Webinar on 'IoT Architecture' held at Nehru Institute of Engineering and Technology, Coimbatore on 21st June 2021.

Mr.S.Saravanan, AP of Information Technology department attended Webinar on 'Banking and other Financial Facilities Available to Entrepreneurs & Scientists' held at EDII-ABIRF University College of Engineering, BIT Campus, Sathyamangalam on 19th June 2021.

Dr.K.Muthumanickam, ASP of Information Technology department attended a Webinar on Benefits of IPR and Patent Filing Procedures held at Kongunadu College of Engineering and Technology, Trichy on 17th June 2021.

Mr.S.Simonthomas, AP, of Information Technology department attended Webinar on 5-G Wireless Communication held at Kumaraguru College of Technology, Coimbatore on 15th June 2021.

Mr.S.Saravanan, AP of Information Technology department attended Webinar on 'R&D Services through I-STEM Portal' held at Indian Science Technology and Engineering facilities Map, Bengaluru on 10th June 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended Webinar on 'Soft Skills' held at Azad Mahavidyalaya, Ausa on 7th June 2021.

Dr.K.Muthumanickam, ASP, of Information Technology department attended Webinar on Cognitive and Personal Dimensions of Cyber Learning held at Arasu Engineering College, Kumbakonam on 7th June 2021

Dr.R.Sathya, AP, of Information Technology department attended Webinar on 'How to be Successful as a professor' held at A.V.C College of Engineering, Nagapattinam on 2nd June 2021.

Mrs.S.Sangeetha, AP, of Information Technology department attended Webinar on 'How to be Successful as a professor' held at A.V.C College of Engineering, Nagapattinam on 2nd June 2021.

NPTEL Course Completed

Mrs.S.Sangeetha, AP, Information Technology Department completed NPTEL course on Operating System Fundamentals and received Elite certificate with 75% during July to October 2021.

Faculty Publication in Journals

G.Manorajan, Madhavarapu Chandan, G.Karthik, Dr.Rabinarayan Satpathy, Dr.S.Sugumaran, 2021 'Security against SSDF attacks using Novel Attack Mitigation Mechanism for Cognitive Radio Networks' IEEE Xplore.

S.Simonthomas & M.Mythili 2021 "Secure Adhoc Payment Transaction Scheme Using Optimistic Fair Exchange Protocols", International Journal of Grid and Distributed Computing, ISSN: 2005-4262 IJGDC, Vol 14, No.1, (2021), pp., 1283-1290.

P.Vijayalakshmi, K.Selvi, K.Gowsic & K.Muthumanickam, 2021, 'A misdirected route avoidance using random waypoint mobility model in wireless sensor network' Wireless Networks, Vol. 27, Issue 6, pp. 3845-3856, <https://doi.org/10.1007/s11276-021-02703-1>

N.Premkumar, R.Santhosh, 2021 'Challenges and Issues of E-Health Applications in Cloud and Fog Computing Environment' Lecture Notes on Data Engineering and Communications Technologies, Vol. 68, pp. 711-721, https://doi.org/10.1007/978-981-16-1866-6_54

Faculty Publication in Conference

Dr.R.Sathya, 'Computer Vision Human Action Recognition using Cumulative Difference Energy Representation based Features and Employing Machine Learning Techniques' International Conference on 'Computational Methods and Data Engineering - ICCMDE 2021' held at Vellore Institute of Technology-Vellore, India on 25th & 26th November 2021.

Mrs.S.Sangeetha, 'Implementation and Comparative Analysis of Various Energy Efficient Clustering Schemes in AODV' International Conference on 'Innovation, Research and Challenges in Emerging Technologies' held at Panipat Institute of Engineering and Technology, Haryana on 19th & 20th Nov 2021.

Mr.G.Karthik, 'Security against SSDF attacks using Novel Attack Mitigation Mechanism for Cognitive Radio Networks' IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT 2021) held at Velalar College of Engineering & Technology, Erode from 15th to 17th Sep 2021.

Dr.R.Sathya, 'Vision based Personal Face emotional Recognition Approach Using Machine Learning and Tree-based Classifier' International Conference on 'Inventive Computation and Information Technologies ICICIT 2021' held at RVS Technical Campus, Coimbatore, India on 12th & 13th August 2021.

Dr.K.Muthumanickam, 'Study of Artificial Intelligence in Breast Cancer Detection Using Machine Learning Techniques', Artificial Intelligence & Smart Computing (ICAISC) held at Narsima Reddy Engineering College, Secunderabad, on 22nd & 23rd October 2021.

Dr.K.Muthumanickam, 'Convolutional Neural Network-Based Approach to Detect COVID-19 from Chest X-ray Images', International Conference on Cyber Security, Privacy and Networking (ICSPN 2021), Online Mode on 17th September 2021.

Publication of Book/Manual

Dr.C.Saravanabhavan, Dr.K.Muthumanickam, Dr.P.Preethi, Design and Analysis of Algorithms, Charulatha Publications, Chennai, ISBN no. 978-93-92663-12-3, Nov 2021.

Mr.G.Karthik, Mr.K.Karthik & Mr.R.Krishna Prakash, Computer Networks, Charulatha Publications, Chennai, ISBN no. 978-93-90967-85-8, Nov. 2021.

Dr.K.Baskar, Dr.S.Dhanabal & Mr.S.Simonthomas, Operating Systems, The Charulatha Publications, Chennai, ISBN no. 978-93-92663-07-9, September 2021.

Dr.R.Sathya, Mrs.S.Sangeetha, Mr.C.Radha Krishnan, Software Engineering, The Charulatha Publications, Chennai, ISBN no. 978-93-90967-93-3, Sep 2021.

Mrs.M.Mythili & Mr.S.Simonthomas, C++ and Data Structures, The Charulatha Publications, Chennai, ISBN no. 978-93-90967-68-1, June 2021.

Dr.S.Shanmugam, Mr.N.Premkumar & Mr.R.Palani Kumar, Java Programming, The Charulatha Publications, Chennai, ISBN no: 978-93-90967-33-9, May 2021.

Dr.C.Saravanabhavan, Dr.P.Preethi & S.Simonthomas, Data Structures, The Charulatha Publications, Chennai, ISBN no. 978-93-90967-37-7, March 2021.

Staff as a resource person

Dr.R.Sathya, AP, Information Technology department was the session chair in International Conference on Computational Methods and Data Science (ICCMDE 2021) held at Vellore Institute of Technology-Vellore, India on 25th & 26th November 2021.

Dr.K.Muthumanickam, ASP, Information Technology department was took session on Innovation Ambassador Program Series "Integration Research Innovation and Entrepreneurship in Academic Institutions and Economic Growth of Country" held at Kongunadu College of Engineering and Technology, Trichy on 20th Aug 2021.

Recognition for Faculty members

Dr.K.Muthumanickam, Mrs.S.Sangeetha and Mr.R.Palanikumar, was recognized as a mentor for project based learning (PBL) in Java J2EE by Wipro.

Dr.K.Muthumanickam has undergone Innovation Ambassador training (Foundation Level) conducted by MoE's Innovation Cell & AICTE during the period from 30th Jun to 30th July 2021 in online mode.

Prize won by Students in Competitions (Curricular / Extra-Curricular Activities)

Nithiyashree S & Priyadarshini S of II Year Information Technology Department won II prize in Paper Presentation event in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam on 13th November 2021 & 14th November 2021.

Yogapreethi N & Priyanka S of II Year Information Technology Department won II prize in Paper Presentation event in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam on 13th November 2021 & 14th November 2021.

Aarthi K R of III Year Information Technology Department participated in University Level Hockey Tournament held at Mangalore University, Mangalore from 26th December 2021 to 30th December 2021.

Paper presentation by Students

Kavya S & Nithyasree M of II Year Information Technology Department presented paper on 'Ceramic Substrate' in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam on 13th November 2021 & 14th November 2021.

Keerthi Lakshmi S of II Year Information Technology Department presented paper on 'Remote Sensing and GIS Applications' in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam on 13th November 2021 & 14th November 2021.

Priya J of II Year Information Technology Department presented paper on 'Sensors used in autonomous driveless car' in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam on 13th November 2021 & 14th November 2021.

Akshaya K & Karthika N of II Year Information Technology Department presented paper on 'Cyber Security' in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam on 13th November 2021 & 14th November 2021.

Harshini M D, Jeeva R & Dhivyadharshini V of II Year Information Technology Department presented paper on 'Renewable Energy System' in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam from 13th November 2021 & 14th November 2021.

Harini S of II Year Information Technology Department presented paper on 'Crystal Growth' in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam from 13th November 2021 & 14th November 2021.

Gokul E, Gnanamoorthy JR and Haarvin SP of II Year Information Technology Department presented paper on 'Finding the Water Level using Dido Radar' in National Level Technical Symposium on Promoting innovative research and enhancing rural development (PIERD), organized by QCPRL & CMRL in association with NSS - BIT held at Bannari Amman Institute of Technology, Sathyamangalam from 13th November 2021 & 14th November 2021.

Kavya S & Nithyasree M of II Year Information Technology Department presented paper on 'Driverless Car' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Nithiyashree S & Priyadharshini S of II Year Information Technology Department presented paper on 'Object Detection using OpenCV' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Kavin S of II Year Information Technology Department presented paper on 'E-Vehicles' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Manobala K of II Year Information Technology Department presented paper on 'Green Chemistry' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Niranjan S of II Year Information Technology Department presented paper on 'Bio-Informatics in AI' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Pakkurutheen S & Pradeep K of II Year Information Technology Department presented paper on 'Electric Motors' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Keerthi Lakshmi S, Lakshmi Priya R & Priya J of II Year Information Technology Department presented paper on 'Global System of Mobile (GSM)' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Paaventhana C & Prabakaran S of II Year Information Technology Department presented paper on 'Artificial Intelligence' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Akshaya K & Karthika N of II Year Information Technology Department presented paper on 'Artificial Intelligence' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Ajay B & Aneesh K of II Year Information Technology Department presented paper on 'Bioinformatics in Artificial Intelligence' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Harshini M D, Jeeva R & Dhivyadharshini V of II Year Information Technology Department presented paper on 'Internet of Things' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Arun K & Ashik K of II Year Information Technology Department presented paper on 'Green Chemistry' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Gokul E of II Year Information Technology Department presented paper on 'Recent Development in E-Vehicles' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Dhanush M & Harisivam S of II Year Information Technology Department presented paper on 'Block Chain Technology' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Harini S of II Year Information Technology Department presented paper on 'Driver Less Car' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Gnanamoorthy JR of II Year Information Technology Department presented paper on 'Network Security' in National Level Technical Symposium on "TEKSPARK'21" held at Karpagam Institute of Technology, Coimbatore on 29th October 2021.

Internship

1. MagicHues Limited, United Kingdom.
2. Kumaran Systems Pvt. Ltd., Chennai
3. Centilon, Bangalore.
4. Mallow Technologies, Karur
5. Spinspider Technology, Salem
6. Anand Techno-Creations, Satara
7. Pantech e Learning, Trichy
8. SmartKnower, Bengaluru
9. SkillVertex, Bengaluru
10. VERZEO, Bengaluru
11. Cad Desk, Coimbatore

Value Added Course

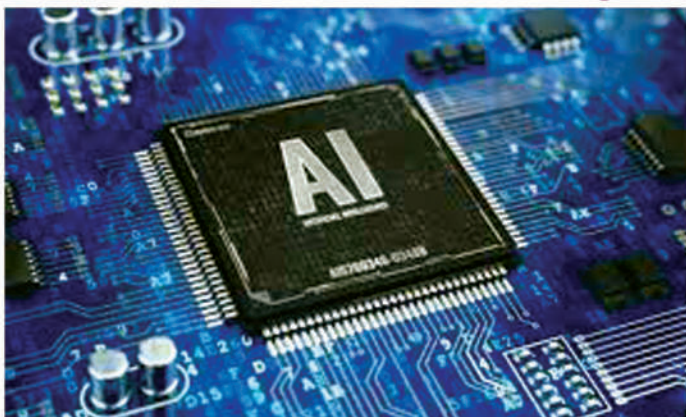
- Machine Learning using Python
- Advanced Web Design Essentials
- Web Design Essentials

Placement Details

S.No	Company Name	No. of Students placed
1	Mallow technology	2
2	Secpod	1
3	AvaSoft BDE & IT Services	6
4	eNoahiSolutions	2
5	Centelon	2
6	Kumaran System	6
7	Wipro	15
8	TCS	3
9	Msys	6
10	Aspires system	2
11	Virtusa	1
12	Hexaware	1
13	Maveric	1
14	MindTree	1
15	Vdart	5
16	AGT	5
17	Sutherland Global	1
18	Tata Elxsi	2
19	IIFL	15
Total Offer Count		77

10 New Innovations That Change the World

1. Hardware for Artificial Intelligence



As companies use more and more data to improve how AI recognizes images, learns languages and carries out other complex tasks, a computer chips could dynamically rewire themselves to take in new data like the brain does, helping AI to keep learning over time. Unlike the brain, which constantly forms new connections between neurons to enable learning, the circuits on a computer chip don't change. A circuit that a machine has been using for years isn't any different than the circuit that was originally built for the machine in a factory. This is a problem for making AI more portable, such as for autonomous vehicles or robots in space that would have to make decisions on their own in isolated environments. If AI could be embedded directly into hardware rather than just running on software as AI typically does, these machines would be able to operate more efficiently.

2. Quantum Networks



Quantum networks are similar to classical networks. Information travels through them, providing a means of communication between devices and over distances. Quantum networks move quantum bits of information, called qubits, through the network. These qubits are usually photons. Through the quantum phenomena of superposition and entanglement, they can transmit much more information than classical bits, which are limited to logical states of 0 and 1, are able to. Successful long-distance transmission of a qubit requires precise control and timing. In addition to the well-understood requirements of transmission distance and data rate, for quantum networks to be useful in a real-world setting there are at least two other requirements of industry that need to be considered. One is real-time network control, specifically time-sensitive networking. The second requirement is cost. Large-scale adoption of an industrial quantum network will only happen if costs can be significantly reduced.

3. Deep Learning to IoT



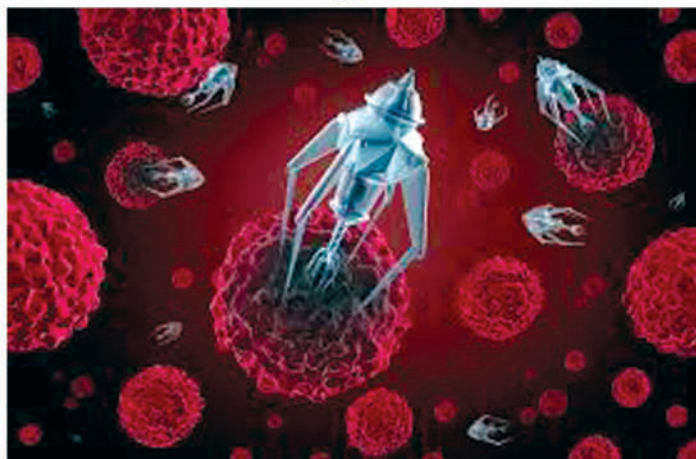
Deep learning is every where. This branch of artificial intelligence curates your social media and serves your Google search results. Soon, deep learning could also check your vitals or set your thermostat. MIT researchers have developed a system that could bring deep learning neural networks to new – and much smaller – places, like the tiny computer chips in wearable medical devices, household appliances, and the 250 billion other objects that constitute the "internet of things" (IoT). The system, called MCUNet, designs compact neural networks that deliver unprecedented speed and accuracy for deep learning on IoT devices, despite limited memory and processing power. The technology could facilitate the expansion of the IoT universe while saving energy and improving data security.

4. Virtual Reality against Disease



Science has the technology to measure the activity of every gene within a single individual cell, and just one experiment can generate thousands of cells worth of data. Advanced techniques in DNA and RNA sequencing have opened up the possibility of studying individual cells in tissue in a more comprehensive way than was previously possible. The big challenge with these sequencing techniques is that they lead to large amounts of data. Researchers at Lund University in Sweden have now revolutionised the way this data is analysed – by using 3D video gaming technology.

5. Nanotechnology



According to experts, bringing an end to the pandemic will require rapid screening of people attending large gatherings, such as conferences and weddings. Even those who are asymptomatic can still transmit COVID-19 to others, making it important to identify and isolate them

until they are no longer contagious. Now, researchers reporting in ACS Nano have developed a prototype "breathalyzer" that can sensitively and accurately diagnose COVID-19, even in asymptomatic individuals, in less than 5 minutes.

6. Education & Learning



Many exceptional human skills, such as reading, mastering a musical instrument or programming complex software, require thousands of hours of practice and consistent cognitive effort. Prevailing scientific theories hold that cognitive effort is experienced as unpleasant and people try to avoid it whenever possible. However, there are many situations in everyday life in which people seem to exert themselves voluntarily, even if there is no obvious external reward. For example, many people enjoy solving Sudoku puzzles, students are often motivated by challenging intellectual tasks, and amateur pianists can spend hours striving for perfection without any external reward. Recently, some scientists have critically questioned whether cognitive effort is always aversive, arguing instead that challenging cognitive activities can under certain circumstances be experienced as rewarding and valuable.

7. Machine-Brain Interface



A KAIST research team and collaborators revealed a newly developed hydrogel-based flexible brain-machine interface. To study the structure of the brain or to identify and treat neurological diseases, it is crucial to develop an interface that can stimulate the brain and detect its signals in real time. However, existing neural interfaces are mechanically and chemically different from real brain tissue. This causes foreign body response and forms an insulating layer (glial scar) around the interface, which shortens its lifespan. To solve this problem, the research

team of Professor Seongjun Park developed a 'brain-mimicking interface' by inserting a custom-made multifunctional fiber bundle into the hydrogel body. The device is composed not only of an optical fiber that controls specific nerve cells with light in order to perform optogenetic procedures, but it also has an electrode bundle to read brain signals and a microfluidic channel to deliver drugs to the brain. The interface is easy to insert into the body when dry, as hydrogels become solid. But once in the body, the hydrogel will quickly absorb body fluids and resemble the properties of its surrounding tissues, thereby minimizing foreign body response.

8. Expanding Renewable Energy



Researchers from Southampton studied if expanding land use requirements for wind and solar infrastructure would impact the ability to preserve biodiversity. They used global databases covering more than 24,500 land-based renewable energy installations in 153 countries to examine overlaps with areas identified as important for biodiversity conservation, at 1-km resolution. Increasing the production and use of renewable energy sources is critical to meet climate targets. However, they require much more land to achieve the same energy production density as fossil fuels and can have local impacts on ecosystems, such as disruption of vegetation by solar panels.

9. Image Processing



MRI is a powerful medical tool that provides detailed images of everything from bones and joints to the brain and spinal cord, but millions of patients can't benefit from the improved care it provides. New MRI technology, developed by Siemens in collaboration with researchers at The Ohio State University College of Medicine and College of Engineering, will expand imaging access for patients with implanted medical devices, severe obesity and claustrophobia. The Ohio State University Wexner Medical Center is the first in the United States to install this recently FDA-approved full body MRI for patient care. The technology uses a lower magnetic field to open up new possibilities for imaging the lungs and patients with implanted devices and will potentially support new interventional procedures that could result in less radiation exposure.

10. Cyber security



Army researchers developed a new machine learning-based framework to enhance the security of computer networks inside vehicles without undermining performance. With the widespread prevalence of modern automobiles that entrust control to onboard computers, this research looks toward a larger Army effort to invest in greater cybersecurity protection measures for its aerial and land platforms, especially heavy vehicles. In collaboration with an international team of experts from Virginia Tech, the University of Queensland and Gwangju Institute of Science and Technology, researchers at the U.S. Army Combat Capabilities Development Command, known as DEVCOM, Army Research Laboratory devised a technique called DESOLATOR to help optimize a well-known cybersecurity strategy known as the moving target defense.



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