Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

NAAC A++

Recognised as CATEGORY-1 DEEMED TO BE UNIVERSITY by the UGC University Grants Commission

School Of Computing

Department of Computer Science and Engineering

Magazine

Ensightbytes

2021-2022

Vision

To produce intellectual graduates who could contribute significantly in the analysis, design, development, operation and maintenance of complex software systems for meeting the ever changing requirements of service systems and to compete globally towards professional excellence.

Mission

M1: Design curricula for imparting training in adapting newer computing methods and technologies for providing effective and efficient solutions to the existing / new problems.

M2: Emphasizing in-depth knowledge of the subjects by employing Information and Communication Technology (ICT) based pedagogy methods.

M3: Creating a conducive research environment for making technological innovations by the faculty and students.

M4: Providing leadership skills and professional ethics thereby making a prolific career in academics and industry.

PROGRAM EDUCATIONAL OBJECTIVES

PEO1: The graduates of B.Tech Computer Science and Engineering will be able to formulate, solve and analyze Computer Science and Engineering problems using necessary mathematical, Scientific and engineering fundamentals.

PEO2: The graduates of B.Tech Computer Science and Engineering will be able to demonstrate the impact of cutting-edge technologies to accomplish social and professional responsibilities.

PEO3: The graduates of B.Tech Computer Science and Engineering will be able todemonstrate critical thinking, communication, teamwork, leadership skills and ethical behavior necessary to function productively and professionally.

PEO4: The graduates of B.Tech Computer Science and Engineering will be able to pursue higher education at reputed institution in India and abroad, work in product development companies and engage in lifelong learning.

INSTITUTION HEADSHIPS

Col. Prof. Vel. Dr. R. Rangarajan
B.E. (Elec), B.E. (Mech), M.S. (Auto), D.Sc.,
Founder President & Chancellor

Dr. Sagunthala Rangarajan
MBBS
Foundress President

Mrs. Rangarajan Mahalakshmi Kishore
B.Tech, M.Tech, MBA(UK),
Chairperson & Managing Trustee

Prof. S. Salivahanan
B.E, M.E, Ph.D.
Vice-Chancellor

Prof. Dr. V. Srinivasa Rao
B.E, M.E, Ph.D.
Professor
Dean - School of Computing

MOOCS – INDEPENDENT LEARNING COURSE PERFORMANCE SUMMARY (ACADEMIC YEAR 2021–22)

During the academic year 2021–22, students actively participated in MOOC courses offered across two sessions: Summer and Winter. The data reflects strong enrollment and successful completion rates, highlighting the institution's commitment to promoting self-paced and independent learning.

Summer Session (2021–22)

- Total Registered: 1195
- Certified: 751
- Successfully Completed: 457
- Elite: 284
- Elite + Silver: 10
- Elite + Gold: 0

Winter Session (2021–22)

- Total Registered: 916
- Certified: 827
- Successfully Completed: 464
- Elite: 362
- Elite + Silver: 1
- Elite + Gold: 0

PLACEMENT SUCCESS 2021–22

Our graduates made a strong industry presence with outstanding placement outcomes this year.

Top Recruiter

- DXC Technologies – 71 students placed

Major Recruiters

- HCL Technologies – 35 students
- Infosys (On & Off Campus) – 32 students

Technical Excellence Recognized

- HackWithInfy – 11 students placed with 5.0 LPA offers

Premium Offers Secured

- Kaar Technologies – 7.0 LPA
- Internshala – 6.0 LPA
- IVY Global – 5.4 LPA
- Harman – 5.0 LPA

From global IT leaders to innovative tech firms, our students showcased confidence, skill, and readiness for the professional world.

Key Recruiters & Impact

- **TCS** made a significant mark with **46 placements** under TCS Ninja and additional roles through TCS (**15 placements**) and TCS Digital (**1 placement @ 7.0 LPA**).
- **Wipro** extended opportunities through multiple hiring tracks, offering **13 placements** in total.
- **Mphasis and Tech Mahindra** contributed to strong placement numbers with **8 hires each**.
- **Quest Global and Walmart each hired 7 students**, offering roles in core engineering and advanced tech development.

High-Value & Premium Offers

- **Mu Sigma** offered a competitive **package of 30L** over 4 years, selecting 7 analytical minds.
- **Wiley Mthree** recognized top performers with roles offering **7.0 LPA**.
- **Planet Spark** and **Red Hat** placed candidates with packages of **6.5 LPA**, while Temenos extended a **5.5 LPA offer**.

Tech Talent Highlights

- **Revature and Sphere Fluidics** acknowledged strong technical capabilities with **5.0 LPA** opportunities.
- **Softura, Prodapt, and Span Technology** added to our core software placement strength.

This phase of placements stands as a testament to our students' industry readiness, broad skillsets, and ability to excel in competitive global work environments.

🏆 AWARDS & PUBLICATIONS

Celebrating Academic Excellence and Research Brilliance

Our faculty members continue to make remarkable contributions to the world of research and innovation. Their groundbreaking studies and global publications stand as a testament to our institution's commitment to academic excellence.

🌐 Highlights of Faculty Publications (2021–2022)

- **Dr. V. Dhilip Kumar** – Designed and evaluated Wi-Fi offloading mechanisms for next-generation networks, published in the International Journal of E-Collaboration and Wireless Personal Communications.
- **Dr. R. Aruna** – Explored Big Data Analytics in Healthcare and Blockchain-based Secure Cloud Backup Systems, enhancing digital healthcare and data security.
- **Dr. M. Shyamala Devi** – Made prolific contributions in Machine Learning, IoT, and Healthcare Technologies, publishing across prestigious platforms such as Springer, Turkish Online Journal, and Annals of the Romanian Society for Cell Biology.
- **Dr. E. Kannan** – Advanced research in Cloud Security and Smart Energy Systems, focusing on deep learning-based secured communication and power optimization.
- **Dr. K. Meena** – Worked on AI-driven optimization techniques and hybrid composite material studies for industrial applications.
- **Dr. R. Suguna** – Pioneered studies in Data Science and AI, including sarcasm detection on social platforms and agricultural image recognition using advanced learning models.
- **Dr. G. R. Kanagachidambaresan** – Proposed a Cluster-Based Backpressure Routing System for the Internet of Things, published in Wireless Personal Communications (WPC).
- **Dr. Rajeev Kumar** – Published innovative works on Iris Recognition and Healthcare Monitoring using IoT and wearable technologies.
- **M. Thanjaivadivel** – Researched extensively in AI-powered voice systems, leaf disease prediction, and big data visualization for education.
- **Dr. N. Gomathi** – Contributed to IoT Resource Management using optimization algorithms for improved system efficiency.
- **Dr. N. Vijayaraj** – Published an extensive survey on IoT Applications, Security Challenges, and Mechanisms.

✨ In Essence
From Artificial Intelligence to IoT, from Blockchain to Healthcare Analytics — our faculty have published over 40 impactful papers in internationally reputed journals like Springer, IEEE, Elsevier, and Turkish Journal of Computer and Mathematics Education during 2021–2022.
Their innovations continue to inspire new frontiers in research, proving that learning truly knows no limits.

RESEARCH & PUBLICATIONS

Innovating Ideas. Inspiring Impact.

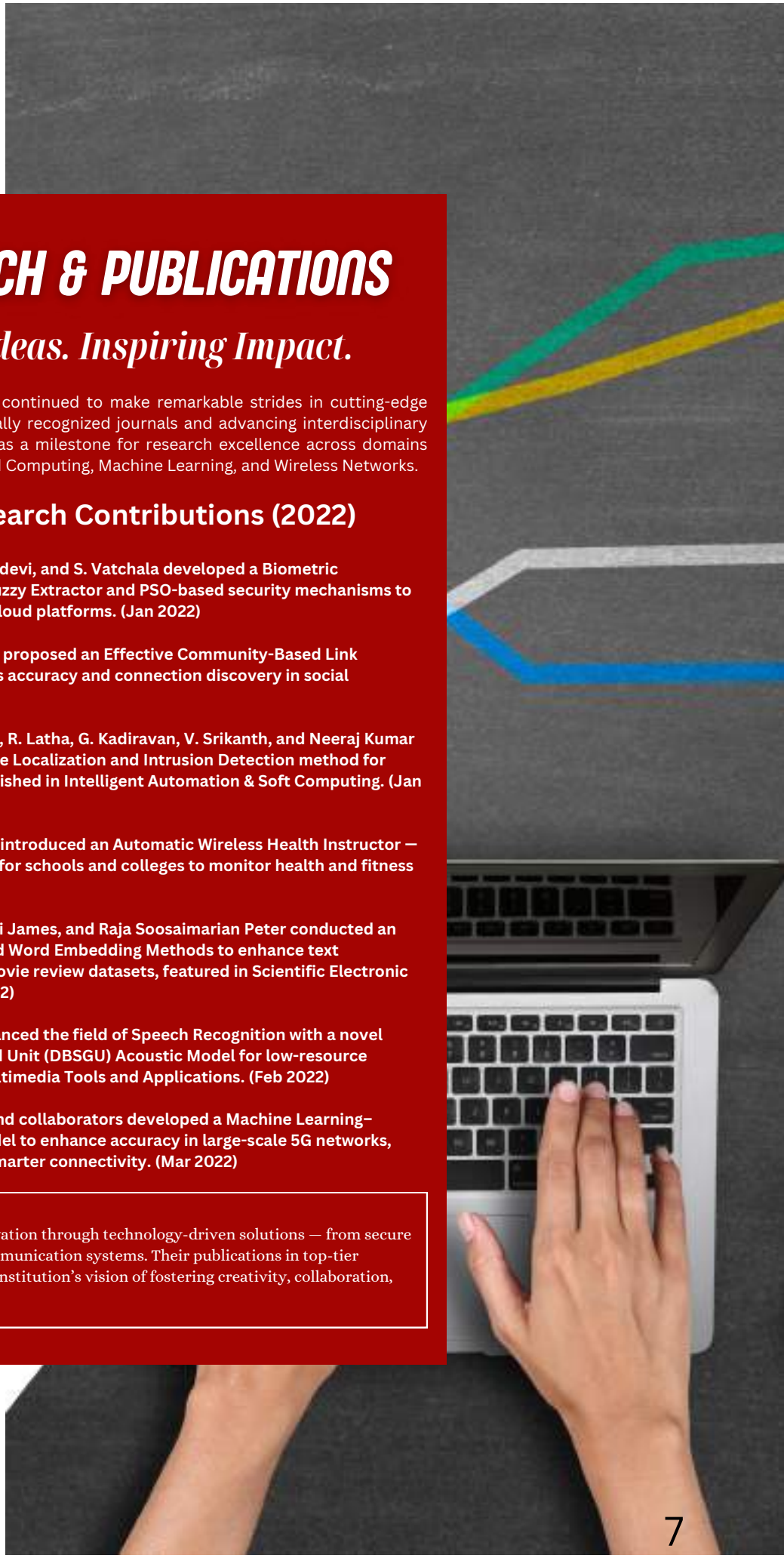
Our faculty and researchers have continued to make remarkable strides in cutting-edge technologies, contributing to globally recognized journals and advancing interdisciplinary knowledge. The year 2022 stands as a milestone for research excellence across domains such as Artificial Intelligence, Cloud Computing, Machine Learning, and Wireless Networks.

🌍 Highlights of Research Contributions (2022)

- **A. Sathish, A. Bajulunisha, R. Sridevi, and S. Vatchala developed a Biometric Authentication System using Fuzzy Extractor and PSO-based security mechanisms to strengthen data protection in cloud platforms. (Jan 2022)**
- **M. Mohamed Iqbal and K. Latha proposed an Effective Community-Based Link Prediction Model that enhances accuracy and connection discovery in social networks. (Jan 2022)**
- **R. Punithavathi, R. Thanga Selvi, R. Latha, G. Kadiravan, V. Srikanth, and Neeraj Kumar Shukla presented a Robust Node Localization and Intrusion Detection method for Wireless Sensor Networks, published in Intelligent Automation & Soft Computing. (Jan 2022)**
- **Jeyalakshmi Chelliah and team introduced an Automatic Wireless Health Instructor — an innovative system designed for schools and colleges to monitor health and fitness remotely. (Feb 2022)**
- **Sandhya Alagarsamy, Visumathi James, and Raja Soosaimarian Peter conducted an Experimental Analysis of Hybrid Word Embedding Methods to enhance text classification accuracy using movie review datasets, featured in Scientific Electronic Library Online (Brazil). (Feb 2022)**
- **S. Girirajan and A. Pandian advanced the field of Speech Recognition with a novel Deep Bidirectional Single Gated Unit (DBSGU) Acoustic Model for low-resource environments, published in Multimedia Tools and Applications. (Feb 2022)**
- **R. Uma Mageswari, A. Suresh, and collaborators developed a Machine Learning–Empowered CSI Prediction Model to enhance accuracy in large-scale 5G networks, paving the way for faster and smarter connectivity. (Mar 2022)**

✨ In Essence

Our researchers are redefining innovation through technology-driven solutions — from secure cloud mechanisms to intelligent communication systems. Their publications in top-tier international journals highlight our institution's vision of fostering creativity, collaboration, and global research excellence.



PATENT PUBLICATIONS

Pioneering Ideas. Protecting Innovation.

Innovation thrives where creativity meets technology. Our faculty members continue to push boundaries through inventive solutions that bridge the gap between research and real-world applications. The year 2022 marked a significant leap in intellectual contributions with several patents published in emerging areas such as IoT, Machine Learning, Cloud Computing, and Automation.

Mr. J. Jagannathan

- **Patent Title: An IoT and Machine Learning-Based Method of Communicating a Digital Message with an Information Signal**
- **Patent No.: 202241006301**
- **Status: Published**

Focus: Integrating IoT and ML for intelligent digital communication systems.

Mr. J. Jagannathan

- **Patent Title: Method to Transfer Electronic Medical Information in a Secure Cloud Environment Using Blockchain**
- **Patent No.: 202241011957**
- **Status: Published**

Focus: Enhancing healthcare data security through blockchain-based storage and sharing.

Dr. N. R. Rajalakshmi

- **Patent Title: Microcontroller-Controlled Robot Arm for Paint Spraying**
- **Patent No.: 202241003732**
- **Status: Published**
- **Focus: Automation and precision control in industrial painting using robotic technology.**

Dr. A. Suresh

- **Patent Title: Machine Learning-Based Bandwidth Monitoring and Notification System for Ensuring Effective and Quality Service of Telecom Operators**
- **Patent No.: 202241000029**
- **Status: Published**

Focus: Real-time monitoring to improve telecom service quality using ML algorithms.

Dr. Visumathi J

- **Patent Title: Cloud-Based Emergency Patient Monitoring System**
- **Patent No.: 202241010461**
- **Status: Published**

Focus: Cloud-powered healthcare monitoring for emergency patient management.

Books & Book Chapters: Writing the Future of Knowledge

2022 was a remarkable year for our faculty, marking their strong presence in global academic publishing.

• Dr. Arun Kumar M. S contributed to Real-Time Applications of Machine Learning in Cyber-Physical Systems (IGI-Global) with his chapter on “Vascular Disease Prediction Using Retinal Image Acquisition Algorithm”, offering new insights into AI-assisted healthcare.

• Ms. M. Kavitha’s chapter, “GIS Systems for Precision Agriculture and Site-Specific Farming”, published by Taylor & Francis, explores the use of GIS for smarter and sustainable agriculture.

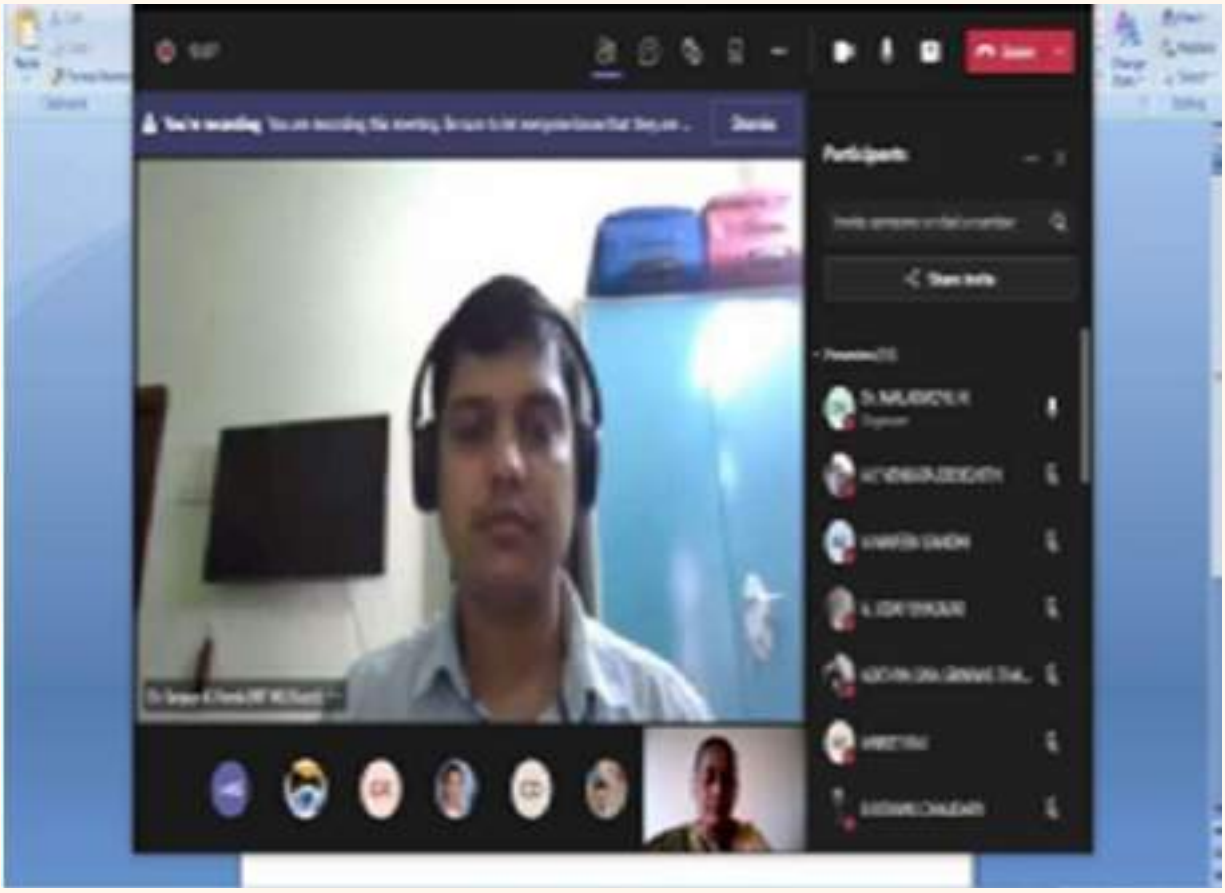
• Dr. S. Jagan authored “Fundamentals of Operating Systems”, a comprehensive textbook released by Scientific International Publishing House, empowering learners with strong system-level concepts.

• Dr. N. Rajkumar’s “Operating System” (Notion Press) brings clarity and depth to OS concepts for both students and professionals.

• Dr. N. K. Senthil Kumar’s “Machine Learning: Algorithms and Techniques” provides a strong foundation for understanding AI applications, published by Scientific International Publishing House.

Together, these works amplify our institution’s academic footprint, blending innovation with intellectual depth.

💡 WORKSHOP ON INNOVATIVE TECHNOLOGIES FOR ENGINEERING PROBLEMS



EXPLORING CLOUD COMPUTING & ARTIFICIAL INTELLIGENCE

The Department of CSE organized an insightful workshop on “Innovative Technologies for Engineering Problems” to help students understand real-world challenges through emerging technologies.

The session began with a warm welcome by Dr. N. Malarvizhi, followed by the resource person’s engaging talk on Cloud Computing — its infrastructure, virtual machines, and real-time applications. Students explored how cloud services simplify complex computing systems.

In the afternoon session, focus shifted to Artificial Intelligence, where students learned about Recommender Systems, their types, and practical deployment in cloud environments.

🎯 Outcome

Students gained hands-on experience in deploying cloud services and developed awareness of how innovative technologies like Cloud Computing and AI solve modern engineering problems.

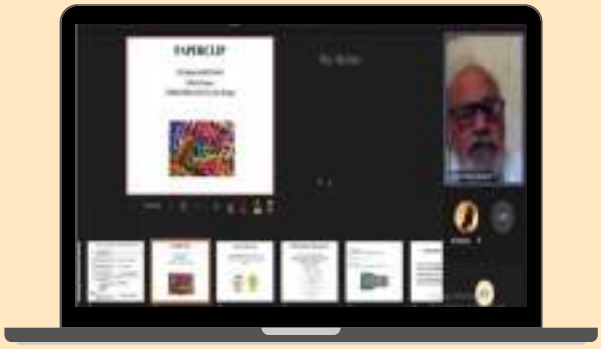
IPR for Entrepreneurs & Startups

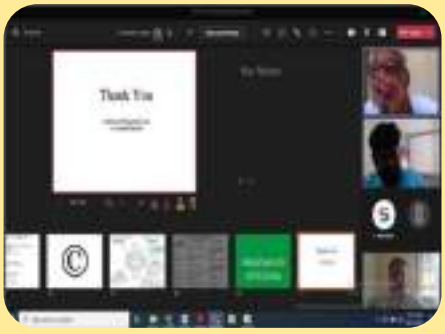
Empowering Innovation through Intellectual Property
📅 ***Date:*** *21st October 2021*
🕛 ***Time:*** *11:00 AM – 12:30 PM*
The session on "Intellectual Property Rights (IPR) for Entrepreneurs and Startups" focused on nurturing innovation and guiding young minds through the process of patenting their ideas.

🌟 ***Key Takeaways***

- *Understanding Innovation and its value in entrepreneurship*
- *Insights on Patents and their various types*
- *Importance of Protecting Innovative Solutions*
- *Step-by-step guide on How to Apply for a Patent*

🎯 ***Outcome***
Students gained a clear understanding of how patents play a vital role in transforming creative ideas into protected innovations — a key asset for any budding entrepreneur.





WORKSHOP ON "MONITORING AND VISUALIZING OF TIME SERIES DATA USING PROMETHEUS AND GRAFANA"

19th and 20th May, 2022
Objective:

Grafana and Prometheus is an open-source data visualization and analysis tool which allows us to view our data in the form of beautiful graphs.

Resource Person:

Resource Person
Mr. Palani Karthikeyan
Sr. Technical Consultants, Krosum Labs, Bangalore, India

Outcome of the Event:

The students are able to design the Grafana & Prometheus dashboard and also they can explore the analytical and visualization tool that will helpful for their projects works.

🔧 ONE-DAY WORKSHOP ON MICROSERVICES IN IOT APPLICATIONS

📅 **Date:** 18.04.2022

Resource Person
Mr. Satheesh Kumar
Technical Lead, Boeing India

Expertise
Distributed Systems · Microservices · IoT · AWS (DynamoDB, S3, Serverless, IoT Core) · NodeJS · ReactJS · Golang · Java Spring Boot · .NET Core · PHP · Design Patterns · SOLID Principles

💼 **Industry Experience**

- Comcast India – Lead Software Engineer
- Worked on smart home IoT platforms using AWS and serverless architecture; led mentoring and sprint activities.
- AloBin Technologies – Senior Software Developer
- Planned, built, and deployed applications using ASP.NET MVC & NodeJS; worked on medical application development in Dubai.

Strategies for Solving Complex Programming Problems

📍 Venue: Learning Space II, Block 33
📅 Date: 27 & 28 May 2022
👥 Resource Persons

- Mr. Saravana Prabhu Subramaniyan
- Team Lead, KLA Tencor Software India Pvt. Ltd., Chennai
- Ms. Virali Vola
- Software Engineer, Google, Bengaluru

⭐ **Workshop Highlights**

The workshop began with a warm welcome by Mrs. D. Hemalatha and an introduction by Dr. N. Malarvizhi, followed by an inspiring address from Dr. V. Srinivasa Rao, Dean, School of Computing. Students were paired and given hands-on tasks, starting with writing pseudo code for a Palindrome check. The resource persons then walked them through multiple logic approaches and constraints.

Day 1:

- Techniques to write effective pseudo code
- Problem-solving using Two Pointer Method
- Tasks included longest substring problems and subarray challenges
- Students actively solved, wrote on the board, and discussed solutions

Day 2:

- Concepts of Divide & Conquer and Backtracking
- Problems like merging K sorted lists and searching a rotated sorted array
- Students wrote, presented, and refined their pseudo code

The workshop included group activities, interactive discussions, and a practice link from crio.do with a 15-day challenge.

🎯 **Outcome**

Students gained strong awareness of strategies to solve complex programming problems and developed confidence in writing effective pseudo code for technical interviews and real-time challenges.

TWO-DAY WORKSHOP ON WRITING PSEUDO CODE

🤖 Getting Started in Artificial Intelligence with No-Code Tools

A Five-Day Hands-On AI Orientation

📍 **Venue:** Learning Space II, Block 33

📅 **Date:** 25–29 April 2022

The orientation program began with a welcome by Dr. Manu V T, followed by the introduction of the resource person, Mr. Govind Maheswaran, AI Leader at EY, Trivandrum.

🔍 **Program Highlights**

- Introduction to No-Code AI techniques
- Basics of AI vs. ML vs. Statistics
- Understanding Big Data, compute power, tools, risks & trusted AI
- Daily hands-on sessions with industry-leading platforms:
  - Google AutoML
  - Microsoft AMLS
  - AWS Sagemaker
- Practical tutorials, live demos, and guided coding activities
- Exploration of AI in Cyber Security, Chatbots & Video Analytics

🎯 **Outcome**

Students gained practical exposure to no-code AI tools, improved their problem-solving strategies, and built confidence in explaining and approaching AI-driven interview questions.

🎯 Orientation Programme
How to Crack Programming Interviews?

Objective

To help students understand smart strategies for approaching programming questions and cracking technical interviews with confidence.

Program Highlights

📍 Venue: Thanigaivelan Auditorium, Block 4

📅 Date: 30 April 2022

🕥 Time: 9:30 AM – 12:30 PM

Resource Person:

Mr. Saravana Prabhu Subramaniyan

Team Lead, KLA Tencor Software India Pvt. Ltd., Chennai

The session began with a warm welcome and introduction by Dr. N. Malarvizhi.

Mr. Saravana kickstarted the orientation by demystifying recruitment policies and sharing industry insights.

He guided students through a 6-step approach to solve programming problems—from understanding the question to writing and testing code. The session also covered:

- How to analyze inputs, outputs & constraints
- The 12-step interview problem-solving framework
- Tips to explain logic confidently during interviews

Students also learned the Eight Pillars of Programming, including coding standards, control statements, loops, methods, and more—brought to life through fun activities and role plays.

The event concluded with an interactive Q&A session, followed by a token of appreciation to the resource person.

Outcome

Students gained practical strategies to solve coding problems, mastered the pillars of programming, and learned to present solutions effectively during technical interviews.

🚀 ONE-DAY WORKSHOP

Modern Digital Transformation

📍 **Venue:** Learning Space – II
📅 **Date:** 06 May 2022 | 🕘 9:30 AM – 4:30 PM
🎤 **Resource Person:** Ms. T. K. Chandravadhana, Senior Technical Consultant, Atos FSI

This workshop introduced students to the world of Digital Transformation — how businesses evolve using modern technologies to stay competitive and customer-centric.

The speaker highlighted key areas such as:

- Process & Business Model Transformation
- Domain Transformation
- Approaches to Digital Innovation

A brainstorming activity on emerging tech trends engaged the students, followed by a live demo on creating a serverless application using AWS.

🎯 **Outcome**
Students gained a clear understanding of how digital transformation reshapes industries and learned to prototype serverless solutions in the cloud.

🎯 WEBINAR ON DESIGN THINKING

📌 *Program Name: Design Thinking, Critical Thinking & Innovation Design*
📅 *Date: 18.12.2021*
⏱️ *Time: 03:00 PM – 04:30 PM*
👥 *Participants: 106*

🔹 Focus Areas

- Design Thinking
- Critical Thinking
- Innovation Design for Smart Solutions

🌟 Key Highlights

- Developing a growth mindset
- Creative idea generation through lateral & critical thinking
- Turning ideas into action: from ideation to prototyping & implementation

🎯 Changes, Challenges & Opportunities through GATE Exam

The Department of Computer Science and Engineering, in association with TIME, organized an awareness session on GATE 2021 exclusively for III-year students. The session highlighted the importance of GATE for higher education opportunities in India and abroad.

The event began with a welcome note by Dr. V. Srinivasa Rao, Dean & HoD – CSE, followed by a highly informative talk by the resource expert from TIME, who explained GATE exam strategies, career pathways, and advantages for future growth.

🏆 **Key Benefit**

Students gained clarity and motivation to plan effectively for GATE and pursue advanced career opportunities.

🎯 Quizathon 2021

The Department of CSE, in association with IEEE WIE, organized Quizathon 2021 exclusively for II & III year students.

A preliminary round held on 11th October witnessed enthusiastic participation from 35 teams, out of which 5 teams advanced to the finals on 12th October. The top three winning teams were awarded merit certificates.

The event was coordinated by Dr. R. Kavitha, Professor, CSE, and inaugurated by Dr. V. Srinivasa Rao, Dean & HoD, CSE. The program concluded with a prize distribution ceremony appreciating the winners' achievements.

I Become – Know Your Strength

Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology in association with TIME take pleasure in enlightening that the Department of Computer Science and Engineering conducting iBecome – Know Your Strength for the II and III year students. This program useful to the students for personality development. The resource person Swami Raghunayakananda ji Maharaj make a delivered lecture good. The event was conducted by Dr.R.Srinivasan, Professor, and Department of CSE with the inauguration address and welcome message by Dean/HoD CSE Dr.V.Srinivasa Rao.

💼 INDUSTRY-ACADEMIA SKILL ENHANCEMENT PROGRAMS

Department of CSE | 2021–2022

To equip students with industry-ready skills, specialized value-added programs were conducted in association with leading professionals from reputed organizations and global universities.

Cloud & DevOps

- Spark Data Processing on AWS – 114 students
- Mr. Krishna Mouli, Boston IT Solutions
- DevOps – 77 students
- Mr. Krinshnaa, CTO – SNK Market Data & Research
- Agile & Scrum – 81 students
- Mr. Vinoth Rajagopal, Boston IT Solutions

Software Engineering & Full Stack

- Django Web Framework – 88 students
- Mr. Krishna Mouli
- Reactive JS – 73 students
- Mrs. V. Suganya, Societe Generale
- Mobile Game Development – 35 students
- GUI Design using iOS – 25 students

Data & AI

- Programming for Analytics (R & Python) – 52 students
- Mr. Vivek Vanavan, Boston IT Solutions
- Reinforcement Learning – 75 students
- Dr. Shalabh Bhatnagar, IISc Bangalore
- Time Series Forecasting – 76 students
- Mr. Krishna Mouli
- Cyber Threat Intelligence – 88 students
- Mr. Subrahmani Babu, Mphasis
- MongoDB – 85 students
- Mr. M. Surya Teja

🌍 INTERNATIONAL PROGRAMS (SUMMER 2022)

- Introduction to Data Science – 39 students
- Prof. Dr. Jey Chelladurai – USA
- Applied AI & Intelligent Systems – 80 students
- Prof. Dr. Keshav Dahal – UK
- Essential Tools & Techniques of Hacking – 53 students
- Prof. Biju Baracharya – USA
- Blockchain, Cryptocurrency & Smart Contracts – 80 students
- Prof. Saravanan Muthaiyah – Malaysia
- Introduction to IoT & Applications – 18 students
- Prof. Michael Opoku Agyeman – UK

✨ Highlight

Over 900+ students upskilled through globally recognized experts and cutting-edge technologies.

Consolidated Enrolment Summary

Industry & International Programs (Summer 2021–2022)

- Industry Programs Enrolled: 724 students
- International Programs Enrolled: 330 students
- Total Enrolment: 1054 students

💼 Industry-Academia Skill Enhancement Programs

📘 IHL Enrolment Summary — 2021-2022
(Industry & International Programs)

🌞 Summer 2021-2022

- Industry Programs: 10 Courses
- International Programs: 7 Courses
- Students Enrolled
  - Industry: 724
  - International: 330
- Total Summer Enrolment: ⭐ 1054 Students

❄️ Winter 2021-2022

- Industry Programs: 12 Courses
- International Programs: 1 Course
- Students Enrolled
  - Industry: 1305
  - International: 31
- Total Winter Enrolment: ⭐ 1336 Students

📊 Overall – Academic Year 2021-2022

- Total Courses Offered: 30
  - Industry Programs: 22
  - International Programs: 8
- Total Student Enrolment: 🌟 2390 Students

✨ Key Highlights

- Industry-focused courses on AWS, DevOps, Cyber Security, Agile & Scrum, Django, TensorFlow, Reinforcement Learning, IoT and more
- International exposure through collaborations with USA, UK & Malaysia universities
- Students gained 1 academic credit per program with Hands-on & Certification-based learning

🎓 STUDENT PARTICIPATION HIGHLIGHTS

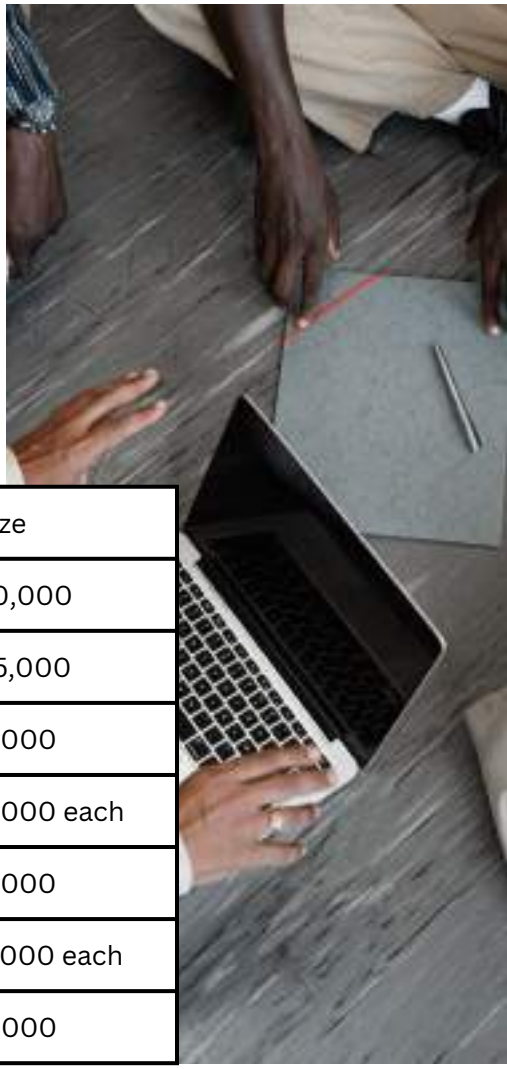
Showcasing Talent Beyond the Classroom & 🏆 Notable Achievements (Inter-Institutional Wins)

✓ Total student participations: 97+ across the academic year
✓ Students actively competed in:

- Hackathons
- Coding Contests
- Technical Events
- Ideathons & Olympiads
- Quiz & Innovation Challenges

✓ Platforms & Challenges included:

- TechGig Code Gladiators
- AWS & Capgemini Tech Challenge
- Tata Imagination & Innovation Challenges
- National Engineering Olympiad
- Flipkart GRiD, Neo Codeathon & more



Student	Event	Prize
Prasanth A R	Hackathon	₹70,000
Vivashu Rai	Hackathon	₹25,000
Nerella Yella Reddy	Coding	₹5,000
D. Krishna & Krishna Vamsi	Coding	₹3,000 each
Suda Venkata Raghavendra	VelTech TBI Innovation	₹3,000
Md Mojahidul Islam & **Dipta Talukder**	Technical Events	₹1,000 each
Chevvu Venkata Sujith Kumar	Technical Event	₹4,000

A team of talented CSE students from Vel Tech secured the 1st Runner-Up position in the prestigious TechnoPHILIA'22 Hackathon held online by MIT, School of Electrical Engineering on 23rd March 2022. Their innovative project titled "Smart Mine Device" impressed the jury and earned them a cash prize of ₹15,000. The winning team included Deepanshu Singh (Vtu12311), Ankit Kumar (Vtu11992), Nitin Das (Vtu16807) and Raghav Rajvanshi (Vtu12050), who showcased exceptional problem-solving skills and teamwork throughout the competition.

Our talented students once again proved their excellence at Hack Overflow V2.0, held at Rajalakshmi Engineering College, Chennai from 01–02 April 2022. Their project "Smart Mine Android Application" impressed the judges, earning them 1st Place and a cash prize of ₹25,000.
The champion team included: Deepanshu Singh (Vtu12311), Ankit Kumar (Vtu11992), Nitin Das (Vtu16807), and Raghav Rajvanshi (Vtu12050).

Our students excelled at SRISHTI 2022 (Project Exhibition) held on 25th & 26th April 2022 at Saintgits College of Engineering, Kottayam, Kerala. Their project titled "Smart Helmet for Mine Workers" earned the 1st Runner-Up Award in Electronics (EC Category). The winning team consisted of Deepanshu Singh (VTU12311), Animesh Das (VTU16808), Ankit Kumar (VTU11992), Nitin Das (VTU16807), and Raghav Rajvanshi (VTU12050).

The project titled "Smart Helmet for Mine Worker" secured the 1st Rank and won a cash prize of ₹5,000. The winning team members were Deepanshu Singh (VTU12311), Animesh Das (VTU16808), Ankit Kumar (VTU11992), Nitin Das (VTU16807), and Raghav Rajvanshi (VTU12050), who collaboratively contributed to developing this innovative safety solution for mine workers.

એસવીઆઈટી વાસદ દ્વારા
HackSVITનું રાષ્ટ્રીય સ્તરે આયોજન

The team from Vel Tech participated in Hack SVIT, held from 29th April to 1st May 2022 at Sardar Vallabhbhai Patel Institute of Technology, Coimbatore. They showcased their innovative project titled "Smart Helmet for Mine Worker", designed to enhance safety and monitoring in underground mining environments. Competing against top engineering teams, they secured the 1st Runner-Up position along with a cash prize of ₹30,000, reflecting the strong technical execution and practical relevance of their solution. The winning team comprised Deepanshu Singh (VTU12311), Animesh Das (VTU16808), Ankit Kumar (VTU11992), Nitin Das (VTU16807) and Raghav Rajvanshi (VTU12050), whose collaborative effort and innovative approach earned significant recognition at the event.

A team of talented students from the Department of CSE represented our institution at the Prototyping Contest 2022, held on 28th May 2022 at Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai. They presented an innovative project titled "Smart Safety Device and Android Application", aimed at enhancing safety and real-time monitoring in industrial environments. Competing against several outstanding teams, they secured the 1st Rank and won a cash prize of ₹5,000. The winning team members include Deepanshu Singh (VTU12311), Animesh Das (VTU16808), Ankit Kumar (VTU11992), Nitin Das (VTU16807), and Raghav Rajvanshi (VTU12050), whose collective skills and creativity contributed to this remarkable achievement.

🎓 Student – Co & Extra-Curricular Achievements

Celebrating Skills, Innovation & Competitive Spirit

Our students have actively represented the Department of CSE in various Hackathons, Coding Contests, Tech Fests, Project Expos, Ideathons, Technical & Non-Technical events conducted across India. Their consistent participation and exemplary achievements reflect their passion for technology and innovation.

🏆 **Major Achievements with Cash Prizes**

Students secured top ranks in multiple Hackathons and Technical Events across prestigious institutions like Rajalakshmi Engineering College, Saintgits College of Engineering, SNS College of Technology, Sardar Vallabhbhai Patel Institute of Technology, and Vel Tech.

Total Cash Prize Awards of up to ₹30,000 were earned across various competitions.

Notable achievers include:

- Raghav Rajvanshi
- Nitin Das
- Animesh Das
- Aman Raj
- Yenneti Hari Kiran
- Kodati Abhishek
- V. Bhavitha
- Maddula Harshith
- Dabburi Manash

Faculty Mentors who contributed to students' success:

- Mr. Alex David
- Mr. Ravi Kumar S
- Dr. J. Vishumathi
- Dr. Sivajothi
- Ms. Panneer Selvi
- Dr. A. Bhagyalakshmi
- Mr. J. Vivek

🤝 ***Student Participation Highlights***

(June 2021 – May 2022)

Students took part in various inter-institutional events including:

- *SMART India Hackathon (SIH)*
- *National-Level Hackathons*
- *Coding Competitions & Debugging Contests*
- *Ideathons & Project Expos*
- *Poster & Paper Presentations*
- *Workshops / Seminars on Future Tech*
- *Robotics, Circuit Design, Cybersecurity & Gaming Events*
- *Innovation and Youth Parliament Activities*

🎓 Student – Co & Extra-Curricular Achievements

📌 *Participation Summary:*

Category	No. of Events Attended
Hackathons & Coding Events	Many competitive entries, several wins
Ideathons & Innovation Challenges	7
Paper & Poster Presentations	9
Tech Workshops & Skill Events	10+
Quiz / Debate / Symposia	10+

Students showcased teamwork, coding excellence, creative thinking, and real-world problem-solving skills — reflecting their readiness for global tech challenges.

🌟 *In Essence*

Our CSE students continue to bring laurels to the institution through enthusiastic participation and consistent victories — proving that innovation, passion, and perseverance are at the heart of Vel Tech's culture.

Faculty Participation & Professional Development

Enhancing Skills. Expanding Expertise.

Our faculty members actively engaged in national and international Faculty Development Programs (FDPs), workshops, and training events throughout the academic year, strengthening competencies in Artificial Intelligence, Data Science, IoT, Blockchain, Automation, and Security Technologies.

🔹 ***Key Domains Covered***

- *Artificial Intelligence & Deep Learning*
- *Data Science & Big Data Analytics*
- *Machine Learning*
- *Cloud & IoT Technologies*
- *Blockchain Applications in Healthcare*
- *Emotional Intelligence & Stress Management*
- *Security, Automation & Project Management*

🔹 ***Highlights***

✔ *Participations in reputed programs like ATAL FDP, Semantic Intelligence Series, Cloud Forensics, and Smart City Technologies*

✔ *Faculty trained by leading universities and institutions from India and abroad*

✔ *Strong focus on integrating emerging technologies into teaching & research*

✨ ***Impact***

The continuous upskilling of our faculty ensures:

- *Enhanced learning outcomes for students*
- *Adoption of latest industry-aligned curricula*
- *Growth in research innovation and technology-driven projects*

🌟 Participation Highlights

- *Dr. M. Kavitha*
  - *Artificial Intelligence & Deep Learning (07–12 July 2021)*
  - *Introduction to Geospatial Tools & Technology (26–30 July 2021)*
  - *Industry-Oriented FDP on Data Science (19–23 July 2021)*
  - *Semantic Intelligence – The Way Forward with AI (01–05 July 2021)*
- *Dr. Carmel Mary Belinda M. J*
  - *Semantic Intelligence – The Way Forward with AI (21–25 July 2021)*
  - *Emotional Intelligence (22–26 Nov 2021)*
  - *Stress Management (13–17 Dec 2021)*
- *Dr. N. Malarvizhi*
  - *Research Trends in Computer Vision & NLP (19–23 July 2021)*
  - *AI & ML with Data Science (14–18 July 2021)*
  - *IoT with AI & ML (13–17 Sept 2021)*
  - *IoT: Product Design & Development (02–06 Aug 2021)*
- *Dr. K. Meena*
  - *ATAL FDP – Machine Learning (23–28 Aug 2021)*
  - *FDP on Smart City (09–13 Aug 2021)*
  - *Intelligent Interactive Medical Services (02–06 Aug 2021)*
- *Dr. R. Kavitha*
  - *Emotional Intelligence (22–26 Nov 2021)*
- *Dr. A. Kavitha*
  - *Interdisciplinary Smart Applications of IoT (04–08 Oct 2021)*
  - *AI in Research & Development (22–26 Nov 2021)*

- ***Dr. A. Bhagyalakshmi***
  - ***Fundamental of RPA (04–08 Oct 2021)***
- ***Dr. Senthil Kumar A. M***
  - ***Fundamentals of RPA (04–08 Oct 2021)***
  - ***Automation Domain***
- ***Dr. N. Vijayaraj***
  - ***Blockchain Technology in Healthcare (30 Dec 2021–05 Jan 2022)***
- ***Dr. Thanga Mariappan L***
  - ***Blockchain Technology in Healthcare (30 Dec 2021–05 Jan 2022)***
- ***Dr. Gokul Kannan Sadasivam***
  - ***Cloud Forensics: Techniques & Research Directions (18–22 Oct 2021)***
  - ***Project Management (20–24 Dec 2021)***
- ***Alex David S***
  - ***Blockchain Technology in Healthcare (30 Dec 2021–05 Jan 2022)***
- ***Dr. T. Kamaleshwar***
  - ***Data Science & its Applications (06–10 Dec 2021)***
- ***Dr. D. Sundaranarayana***
  - ***Data Science & its Applications (06–10 Dec 2021)***
- ***Dr. R. Thanga Selvi***
  - ***Deep Dive into Big Data Analytics (27–31 Oct 2021)***
- ***Dr. A. Anbarasa Kumar***
  - ***Data Science & its Applications (06–10 Dec 2021) – AI & ML Domains***
- ***Mr. Manivannan D***
  - ***Blockchain Technology in Healthcare (30 Dec 2021–05 Jan 2022)***
- ***Mr. Manikandan N. K***
  - ***Blockchain Technology in Healthcare (30 Dec 2021–05 Jan 2022)***
- ***Dr. S. Durai***
  - ***Blockchain Technology in Healthcare (30 Dec 2021–05 Jan 2022)***

Faculty Participation – Inter-Institutional Engagements (2021–2022)

The faculty members of the Department of CSE actively enhanced their expertise by participating in national and international FDPs, workshops, seminars and certifications across premier platforms such as AICTE–ATAL, NPTEL, IIT Kanpur, NITs, ICT Academy, IEEE, ACM, NVIDIA, Microsoft, Oracle, Wipro, Virtusa, Coursera, SimpliLearn, European Academy and many more.

🔹 ***Advancing in AI, ML, Data Science & Deep Learning***

Faculty members including Dr. A. Kavitha, Dr. R. Kavitha, Dr. M. Kavitha, Dr. R. Thanga Selvi, Dr. S. Sridevi, Dr. D. Umanandhini, Dr. S. Sankara Narayanan, Dr. A. Anbarasa Kumar, Dr. Arun Pandian J, Dr. A. Bhagyalakshmi, Dr. T. Kamaleshwar, Dr. N. Vijayaraj, Dr. Gokul Kannan Sadasivam, Dr. Elakya R, Dr. M. Rajeev Kumar, Dr. K. Seethalakshmi, Dr. A. Ilavendhan, Dr. Murali Dhar M. S, Dr. Almas Begum, Dr. S. N. Manoharan, Dr. R. Aruna, Dr. S. Jagan and many others participated in specialised programmes on

- ***Artificial Intelligence & Deep Learning***
- ***Machine Learning & Data Science***
- ***Big Data, Hadoop & Data Visualization***
- ***Quantum Computing, RPA & Process Mining***

They attended programmes organised by ATAL Academy, NPTEL, NVIDIA, Microsoft, Wipro, Virtusa, IIT Kanpur, European Open University, European Academy, SSN College of Engineering, ICT Academy, SimpleLearn, Pantech E-Learning, and others.

Faculty Participation – Inter-Institutional Engagements (2021–2022)

🔹 ***IoT, Cloud, Blockchain, Cyber Security & Networking***

Faculty like Dr. N. Malarvizhi, Dr. K. Meena, Dr. N. R. Rajalakshmi, Dr. N. Vijayaraj, Dr. Thanga Mariappan L, Dr. S. Durai, Dr. K. Rajesh Kambattan, Dr. S. S. Sankara Narayanan, Dr. M. Vinodhini, Dr. C. Yogesh, Dr. S. Vatchala, along with S. Aarif Ahamed, S. Sridevi, S. Gopi, P. Arivubrakan, K. Rajathi, Siva Rama Lingham N, Keerthana G, K. Prema, K. Priya, K. Rajkumar, Gangalakshmi T, Alamelu K, M. Dharmateja, Karthik N, M. Dharmateja, Najeem Dheen Abdul Majeeth, M. Mohamed Iqbal, U. Hemavathi, S. Hannah, and others, engaged in programmes on:

- ***Internet of Things (IoT) & Cloud Computing***
- ***Cyber Security, Blockchain Technology & Cloud Forensics***
- ***Computer Networking & Security***

These were hosted by ATAL, IIT Kanpur, NIT Trichy, Presidency University, ICT Academy, G.H. Raisoni University, Oracle, AICTE, Wipro, NVIDIA, CISCO and other reputed institutions.

Faculty Participation – Inter-Institutional Engagements (2021–2022)

🔹 ***Teaching, Pedagogy, IPR & Professional Development***

To enhance teaching–learning quality, several faculty members including Dr. S. Jagan, Dr. M. Kavitha, Dr. A. Bhagyalakshmi, Dr. S. Sridevi, Dr. R. Parthasarathy, Dr. Murali Dhar M. S, Dr. A. Peter Soosai Anandaraj, Dr. V. Kalpana, Dr. D. Sundaranarayana, Dr. K. Rajesh Kambattan, Dr. A. Ilavendhan, Dr. M. Rajeev Kumar, Dr. Almas Begum, along with S. Gopi, S. Karthikram, Nandhini A, C. M. Chidambaranathan, S. Thylashri, Femi D, S. Hannah, P. Latha, Hemalatha D, Suganya V, Ms. Gangalakshmi T, S. Kiruthiga, Prathik A, Usha, K. Priya, Siva Rama Lingham N, U. Hemavathi, and many more, participated in programmes on:

- ***Teaching & Learning Methods, Digital Teaching Techniques, Active Learning & Pedagogy***
- ***Soft Skills & Classroom Engagement***
- ***NEP Orientation and Teaching with Technology***

In the domain of Intellectual Property Rights (IPR), faculty such as Dr. A. Bhagyalakshmi, Dr. N. Malarvizhi, Dr. K. Seethalakshmi, Dr. Arun Pandian J, Sri Raman Kothuri, Minu Inba Shanthini Watson Benjamin, Mr. P. Elumalaivasan, Najeem Dheen Abdul Majeeth, and others attended IPR awareness programmes and NIPAM sessions organised by AICTE, IP Office, MoE's Innovation Cell and institutional IQAC units.

Faculty Participation – Inter-Institutional Engagements (2021–2022)

🔹 ***ICT Academy & Other Collaborative FDPs***

Through ICT Academy & ICTACT collaborations, faculty such as Arivupragan, Dr. Mahalingam, Syed Fiaz A. S., Ashok Kumar V, Dr. Jagadeesan, Dr. Sundaranarayana, Dr. C. M. Belinda, Dr. R. Kavitha, U. Hemavathi, T. M. Sivanesan, Femi D, Uma Maheshwari, Sriraman Kothuri, Tamilmani G, Kanchana Devi, Sivaramalingam and several others participated in focused FDPs and programmes on:

- *Salesforce Developer & Admin Tracks*
- *Android Development with Kotlin*
- *Cyber Security Essentials & CPC*
- *AI Fundamentals, RPA (UI Path), Python Programming*
- *Business Process Mining & Oracle Java Fundamentals*
- *Emotional Intelligence, Stress Management & Digital Teaching Techniques*

🌟 ***In Summary***

Across Artificial Intelligence, Machine Learning, Data Science, IoT, Cloud, Cyber Security, Blockchain, Networking, Pedagogy and IPR, the department's faculty have actively engaged in dozens of inter-institutional programmes, continuously upgrading their skills and bringing back cutting-edge knowledge to the classroom — strengthening both teaching quality and research culture in the department.

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