

# **VELALAR COLLEGE OF ENGINEERING AND TECHNOLOGY**

(Autonomous)
Accredited by NAAC with 'A' Grade
Thindal, Erode – 638 012

**NEWSLETTER** 

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

(Accredited by NBA)

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#### **MESSAGE FROM THE HOD**

Computer Science serves as the foundation for various technological advancements that the world sees today. The field has grown by leaps and bounds. The future innovations that it brings along never seem to slow down. Yet another beauty of computer science is that it finds a place in many interdisciplinary fields as well. With these, there also comes a necessity to



keep up to the global demand of finding highly skilled engineers and scientists. We the Department of Computer Science and Engineering align our goals towards the same and the start-ups, expert engineers produced by us stand testimony to it. The department provides state-of-the-art computing facilities to the students enabling them to stay a step ahead. They are exposed to various opportunities such as inplant training, internships, and workshops during their course of study. The department also hosts a number of workshops and student managed symposiums. The department also encourages innovative projects and quality research in various interrelated domains. The department is involved in major research on which faculty members and students work on several areas such as Networks, Database, Theoretical Computer Science, Multimedia, Image Processing, Software Engineering, Data Mining, Big Data, Machine Learning and Internet of Things.

#### **VISION**

To produce competent professionals for a globalized technological society by preparing them to become part of the industry and research organizations in the field of science and technology and orient them towards serving the society.

#### **MISSION**

- Strengthening the core competence in Computer Science and Engineering through analytical learning and Industry Institute interaction.
- Providing exposure to latest tools and technologies in the core area to design solutions and conduct investigations.
- Promoting innovative research based projects / activities in the emerging areas of technology convergence.
- Inculcating professional behavior, strong ethical values, leadership abilities, entrepreneurship skills and commitment to lifelong learning

#### PROGRAM EDUCATIONAL OBJECTIVES

#### Our graduates after few years of graduation will:

Preparation: Develop professional skills for a successful professional career as an engineer, scientist, technocrat, administrator or an entrepreneur.

Core Competence: Design and implement practical systems consisting of software and/or hardware components through the key principles and practices of computation, mathematics and basic principles of engineering.

Multidisciplinary: Design and apply new ideas and technologies as the field evolves, to solve real world problems in related interdisciplinary areas.

Professional Environment: Demonstrate professional attitude and ethics, effective communication, team work and managerial skills for societal, environmental and global context.

Learning Environment: Engage in continuing education and training and acquire professional competence through lifelong learning.

#### **PROGRAM OUTCOMES**

#### Graduates will be able to

**PO1:** Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2:** Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

**PO3:** Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4:** Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems.

**PO5:** Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

**PO6:** 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.

**PO7:** 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.

**PO8:** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9:** Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10:** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11:** Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12:** Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

#### **PROGRAM SPECIFIC OUTCOMES**

**PSO1.** Apply a variety of programming skills to solve business problems

**PSO2.** Apply design principles in the construction of computing systems and expert systems of varying complexity.

#### **GRANTS RECEIVED**

- Dr.S.Jabben Begum, Ms.K.Vijaya received a grant from AICTE under MODROB scheme for Rs. 11,52,941 to establish Advanced Computer Graphics (CG) and Virtual Reality (VR) Laboratory.
- Dr.S.Jabeen Begum, Dr.V.Latha Jothi, Dr.S.Kayalvili received a grant from AICTE for Rs. 3,36,667 to conduct STTP on 'Internet of Things with Blockchain – Applications and Challenges'
- Dr.S.Gokulraj received a grant from AICTE-ATAL Rs.93000.A five day AICTE sponsored Training and Learning Faculty Development Program on Augmented Reality (AR)/Virtual Reality (VR) was conducted from 07.12.2020 to 11.12.2020.



#### **PROGRAM ORGANIZED**

 Dr.S.Jabeen Begum, Dr.V.Latha Jothi, Dr.S.Kayalvili organized Series I of the AICTE sponsored STTP on "IoT with Blockchain - Applications and Blockchain" from 30.11.2020 to 05.12.2020.

#### **MOUACTIVITIES**

 MoU was signed between department of CSE and Imarticus Limited on 16.12.2020

#### **ASSOCIATION ACTIVITIES**

#### **WEBINAR**

The Webinar was conducted on 'Data Analytics' on 03.08.2020, Monday at 2.00 PM. The function was honored by Mr. AHAMED KHALID, Vice president, Imarticus Learning and delivered the lecture on 'Opportunities in Data Analytics for freshers.

#### THE WEB-DEV BATTLE

The WEB DEVELOPMENT BATTLE was conducted from 09.10.2020,12.01am Friday to 17.10.2020, 9.00 pm Saturday. Nearly 45 students have registered and participated actively. In this contest the students have to create minimum 3 pages of websites based on the given templates using any available web development tools. The individual comes out with the attractive websites were appreciated by the head of the department.

#### **TECHNICAL QUIZ**

The Technical quiz on 'C Programming language' was conducted on 15.08.2020, Saturday through Google meet at 3.00 pm. Nearly 50 students have actively participated and



get benefited. The quiz contains the basic and typical questions of C language. The students who score maximum marks were appreciated by the head of the Department.

#### **CODING CONTEST**

The Coding contest was conducted on 29.08.2020, Saturday through Google meet at 10am. The contest consists of three basic programming questions with default test cases to be passed. This



helps the students to exhibit their technical skills. At the end, top three performers were rewarded and appreciated by the head of the Department.

#### **INAUGURAL FUNCTION**

MAGNUMOPUS - Association of Computer Science and Engineering was inaugurated on 28.09.2020, Monday at 10:00 Am. The function was honoured by Mr.Sundar Muthusamy, Platform Manager for AW/FW Execution, Intel Corporation, Austin, Texas, USA. He also addressed the gathering with special guest lecture on 'Culture of Innovation'.

#### **PLACEMENT ACTIVITIES**

- KARTHIK NANNEPAMULA got selected in Hexaware Technologies. (got offer letter on 26.09.2020) (CTC Offered 3,50,000 Per annum, Designation Graduate Engineer Trainee (GET)).
- 11 students got placed in DXC Technologies, 6 students got placed in TCS, and 3 Students got placed in CTS.

#### TRAINING DETAILS

- CTS Training is going on right now from 05.10.2020.
- DXC Training is given by six phrase from 24.08.2020 to 14.09.2020
- Wipro PRP training is given from 23.06.2020 to 04.10.2020

#### **CLUB ACTIVITIES**

- 85 students participate in "Workshop on Refresher course on SQL queries" organized by data pirates club on 01.10.2020
- 97 students participated in "Seminar on Principles of Cyber security" organized by data pirates club on 11.11.2020

#### FDP PROGRAMS ATTENDED BY FACULTY

- Dr.S.Jabeen Begum, Dr.V.Latha Jothi, Dr.S.Kayalvili participated in the AICTE Sponsored Two Weeks Online Faculty Development Programme on "Ideas and Innovations in Blockchain Architecture, Technology and its Research Applications (Phase II)" organized by the Department of Computer Science and Engineering, Syed Ammal Engineering College, Ramanathapuram from 14.12.2020 to 27.12.2020.
- Dr.S.Gokulraj participated in the online Short Term Training Programme on 'Data Science Technologies', from 23rd to 28th November organized by Dept of CSE,Paavai Engineering College,Namakkal
- Dr.V.Latha Jothi and Dr.S.Kayalvili participated in the AICTE Sponsored Online Short Term Training Programme Series - 1 on "Challenges and Applications of Cyber Physical System" organized by KSR Institute for Engineering and Technology from 19.10.2020 to 24.10.2020.
- Dr.V.Latha Jothi and Dr.S.Kayalvili participated in the AICTE Training And Learning (ATAL) Academy Online FDP on "Block chain" from 07.12.2020 to 11.12.2020 at Karpagam College of Engineering.
- M.Mohanasundari, K.Mohanapriya, C.Kotteeswari, S.Vishnuppriya, S.Ponni, S.Poovizhi and S.Nithya participated in the AICTE Training And Learning (ATAL) Academy Online FDP on "Augmented Reality (AR)/ Virtual Reality (VR)" from 07.12.2020 to 11.12.2020 at Velalar College of Engineering and Technology.
- Sukumar.P participated in the AICTE sponsored Short Term Training Program(Virtual Mode) on "Robotic process Automation Tools & Techniques" from 07.12.2020 to 12.12.2020 at Rajalakshmi Engineering College, Chennai.
- Sukumar.P participated in the AICTE sponsored Short Term Training Program(Virtual Mode) on "IoT with Blockchain-Applications and Challenges" from 30.11.2020 to 05.12.2020 at Velalar College of Engineering and Technology.
- Sukumar.P participated in the Faculty Development Programme on "End-to-End Processes in Data Analytics" from 02.11.2020 to 06.11.2020 at SSN College of Engineering, Kalavakkam.
- M.Mohanasundari, C.Kotteeswari participated in the Faculty Development Program on "Blockchain, Innovation, Industry Al Solutions & Application Security to DevSecOps" conducted by IBM subject matter experts in Dec 2020.
- K.Mohanapriya participated in the Faculty Development Program on "Blockchain, Innovation, Industry Al Solutions & Application Security to DevSecOps" conducted by IBM subject matter experts in Dec 2020.

#### LECTURE / KEY NOTE ADDRESS DELIVERED

- Dr. S. Jabeen Begum acted as a resource person of AICTE STTP 'Effective and Innovative Teaching, Best Practices and Learning Strategies – Series 1& 2' organized by Dept of IT, Velalar College of Engineering and Technology, Erode.
- Dr. S. Jabeen Begum acted as a resource person of AICTE STTP 'Deep Learning Applications and challenges in Big Data Analytics – Series 1' organized by Dept of ECE, Velalar College of Engineering and Technology, Erode.
- Dr. V. Latha Jothi delivered a lecture on "Overview of Machine Learning" at Velalar College of Engineering and Technology in AICTE sponsored STTP on 'Deep Learning Applications and Challenges in Big Data Analytics- series 1' on 17.08.2020
- Dr. V. Latha Jothi acted as a resource person of AICTE sponsored STTP on 'Deep Learning Applications and Challenges in Big Data Analytics – Series 3' organized by Dept of IT, Velalar College of Engineering and Technology, Erode from 05.10.2020 to 10.10.2020.
- Dr. S. Devi Suganya acted as a resource person of AICTE STTP 'Effective and Innovative Teaching, Best Practices and Learning Strategies – Series 1 &2' on 'Evolution of Deep Learning Algorithms' organized by Dept of IT, Velalar College of Engineering and Technology, Erode
- Dr. S. Jabeen Begum acted as a resource person of AICTE STTP 'Effective and Innovative Teaching, Best Practices and Learning Strategies – Series 2' organized by Dept of ECE, Velalar College of Engineering and Technology, Erode.
- Dr.S. Kayalvili acted as a resource person of AICTE STTP 'Effective and Innovative Teaching, Best Practices and Learning Strategies – Series 2' on 'Interactive Classroom' organized by Dept of ECE, Velalar College of Engineering and Technology, Erode on 24.09.2020.

#### **CONFERENCE ATTENDED BY FACULTY**

- Dr.S.Jabeen Begum, Dr.V.Latha Jothi, Dr.S.Kayalvili, Dr.S.Gokulraj presented a paper on "Survey on Forecasting the Vulnerability of Covid-19 in Tamilnadu" in the AICTE sponsored International E-conference on Data Analytics, Intelligent Systems and Information Security (ICDIIS'20) held from 11.12.2020 - 12.12.2020 organized by Dr.Mahalingam College of Engineering and Technology, Pollachi
- Dr.S.Kayalvili presented the paper "A Survey on keyword search over graph database" in the AICTE sponsored International Conference on Current Trends and Challenges in Health care Informatics and Technology organized by KSR College of Engineering from on 10.12.2020
- Dr.V.Latha Jothi presented the paper "A Survey on Online Shoppers' Purchase Intention" in the AICTE sponsored International Conference on Current Trends and Challenges in Health care Informatics and Technology organized by KSR College of Engineering on 10.12.2020
- S.Vishnuppriya and S.Ponni presented the paper "Enhanced Crow Search Algorithm for Task Scheduling in Cloud Computing" in the International Virtual conference on Robotics, Automation, Intelligent Systems and Energy (IVC-RAISE 2020) organized by Kongu Engineering College on 15.12.2020

#### JOURNAL PUBLICATIONS BY THE FACULTY MEMBERS

- Dr.V.Latha Jothi published a paper "Crop Yield Prediction using KNN Model" in International Journal of Engineering Research and Technology, 2278-0181, Volume 8, Issue 12, pp. 4 – 7, Aug-20
- Dr.S.Sadesh published a paper "Designing User-Centered IoT Middleware Solutions for Small and Mid-Scale Farmers for Precision Agriculture using Cloud Computing" in International Journal of Advanced Trends in Computer Science and Engineering, 2278-3091, Volume 9, Issue.4, July – August 2020
- Dr.S.Sadesh published a paper "Fine-grained request approval with truth form over encrypted spatial data in cloud storage" in International Journal of Intellectual Advancements and Research in Engineering Computations, 2348-2079, Volume 8, Issue 4,2020
- Dr.S.Gokulraj published a paper "Infant Health Care Monitoring System Using Iot" in Aegaeum Journal (UGC), 0776-3808, Volume 8, Issue 7, Jul-20
- Ms.K.Vijaya published a paper "Cyberbullying- A Threat To Children And Their Psycho-Social Ambience" in PSYCHOLOGY AND EDUCATION, 0033-3077, Volume 57, Issue 9,1106-1109.Nov-20
- Ms.K.Vijaya published a paper "Canning of Statements in IOT Using Arduino Uno" in International Journal of Engineering Research And Management, 2349- 2058, Volume 7, Issue 8,Aug-20
- Ms.K.Vijaya published a paper "Ransomware Deployment and Analysis" in International Journal of Research and Advanced Development, 2581-4451, Volume 4, Issue 2, Aug-20
- Ms.K.Vijaya published a paper "Multi-Level Privacy Authentication in Distributed M-Healthcare using Blockchain" in International Journal of Research and Advanced Development, 2581-4451, Volume 4, Issue 3, pp. 10-13, Aug-20
- Ms.K.Mohanapriya published a paper "Hiding Medical Data in Video Frames by Encryption and Video Watermarking Techniques" in International Journal of Research and Advanced Development, 2581-4451, Vol 4, Issue 3, pp. 14-18,,Aug-20
- Ms.D. Lavanya published a paper "Adverse Drug Reaction Analysis Using Support Vector Machine Model" in International Research Journal of Modernization in Engineering Technology and Science, 2582-5208, Vol 2, Issue 8, Aug-20
- Ms.D.Nithya published a paper "Efficient Real-Time Tasks Scheduling in Virtualized Cloud Environment" in International Journal of Research and Advanced Development, 2581-4451, Vol 4, Issue 3, pp. 6-9, Aug-20
- Ms.S.Poovizhi published a paper "Geo Tracking System Using Xamarin Approach" in International Journal of Scientific & Technology Research, 2277-8616, Vol 9, Issue 9,Sep-20
- Ms.S.Vishnuppriya published a paper "An Iterative Mapreduce based Frequent Subgraph Mining Algorithm with Load Balancing" in International Journal of Engineering Research & Technology, 2278-0181, Vol 8, Issue 12, Aug-20

#### **PATENT**

- Ms.K.Vijaya has filed and published a patent (Application Number:202041040688) on the title "Management of Temple Collection Box using Sensors and Cloud Data Storage"
- Dr.S.Sadesh &Dr.S.Gokulraj Published a patent (Application Number:202041036326) in 'Methane Gas Measuring device in food waste using raspberry-pi,MQ-4 Sensor'.
- Dr.S.Sadesh &Dr.S.Gokulraj Published a patent (Application Number:202041026105) in 'A Low-Cost 4G Smart Phone Detector and Jammer System GSM - 900 MHZ and 1800 MHZ for using Matlab Simulink'.
- Dr.S.Jabeen Begum has filed and granted a patent(Application Number: 2020103027) on the title "Staggered Short Transmission (SST) protocol for routing during energy saving through WSN".
- Ms.K.Vijaya has filed and published a patent((Application Number: 2020102441) on the title "Secure communication among lot Devices through IoT Coin Operation System"
- Dr.V.Latha Jothi, Dr.S.Kayalvili, Ms.D.Lavanya and Ms.S.Subathra published a patent (Application No.202041055413) in 'CLOUD COMPUTING BASED E-LEARNING PLATFORM'.
- Dr.S.DeviSuganya published a patent (Application number:202041054268 A) in 'Virtual Labs using Cloud Computing'.

#### **BOOK PUBLICATIONS**

- Dr. S.Sadesh, published a book titled 'Knowledge Management' published by Charulatha Publishers, Chennai, ISBN: 978-81-933409-7-4
- Dr. S.Sadesh, published a book titled 'Information Retrieval Techniques' published by Charulatha Publishers, Chennai, ISBN: 978-93-86532-08-4
- Ms. K.Vijaya, published a book titled 'Cyber Forensics' published by Charulatha Publishers, Chennai, ISBN: 978-93-90967-11-7
- Ms.M.Mohanasundari and Ms.K.Mohanapriya, published a book titled 'Service oriented
- Architecture' published by Lakshmi Publication, Chennai, ISBN: 978-93-87950-55-9
- Dr.V.LathaJothi and Ms.Sangeethaa Guganathan, published a book titled 'Human Computer Interaction' published by Suchitra Publications , Chennai, ISBN: 978-93-87670-15-0

#### **AWARD OF PHD**

 Ms.S. Kayalvili has completed her Doctoral Degree from Anna University, Chennai, on 7.09.2020. Her research title is 'Improving Quality of Service for Resource Allocation in Double Auction Mechanism using Modified Heuristic Techniques'. She has published 4 research papers in National and International Journals.



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