Department of Information Technology

The Information Technology department was established, during the Academic Year 2001-2002, with an intake of 60 students and started Postgraduate Course M.E. Software Engineering in the year 2011 with an intake of 18.

Department Objective: We, the Department of IT aspire to establish a system of Quality Assurance, which would continuously, evaluate and monitor the quality of education and training imparted at the Institute; improve the teaching-learning process and ultimately, develop the Department of Information Technology as a Centre of Excellence. Department of Information Technology has been NBA Accredited since 2008 The 'Department of Placement and Training' was organized with the very first batch of our Students, moving into their Third year of Studies, in 2005. While conceptualizing, formulating and establishing the Department, the 'Creation of Excellent Career Pathways' for the Student Community, either through Placement or Guidance for Entrepreneurship or through Higher Studies' was taken as the 'Ultimate Objective'. Each year, many of our students are placed in reputed organizations like TCS, Infosys, L & T Infotech, Syntel, US Technologies, iGate Global Solutions Ltd., iFlex and Satyam Computers. Our Staff produced 100% results in many subjects. External resource persons are invited for guest lectures and seminars from various universities and industries. Our students participated & won in various academic and sports competitions at State & national levels.

Highlights of the Department

- **Research Publications:** Our faculty members have consistently published high-quality research papers in renowned international journals and conferences. Over the past five years alone, we have contributed over **100 publications**, with several papers receiving significant citations and recognition within the academic community.

- **Events organised:** We have organised 11 National Level Conferences in collaboration with **CSI** under the name “ICTCON” and organised 3 International Conferences associated with the **IEEE** Chapter. We also organised 25 Workshops for the benefit of students and organised 15 FDPs for faculty members out of 15 three FDPs are sponsored by Anna University and 3 FDPs are sponsored by IIT Bombay through MHRD Govt. of India. We organize Guest lectures and seminars for our students every semester and around 70 such events were organized.

- **Collaboration and Industry Partnerships:** We have established strong collaborations and partnerships with **Virtusa (Full Stack – Java), and Bala Aatral (AR/VR**). These partnerships have resulted in joint research projects, technology transfer initiatives, and significant funding support from industry sources. Our ability to bridge the gap between academia and industry is a testament to our department's relevance and impact on the technological advancements of the IT sector.

- **Research Grants and Funding:** Our faculty members have been successful in securing research grants from prestigious funding agencies, both national and international. Students

received **project grant funds from TNSCST.** These grants have allowed us to undertake ambitious research projects, explore emerging technologies, and address critical research questions.

- **Patents and Intellectual Property:** We have a strong culture of innovation, resulting in several patents and intellectual property assets. Our faculty members and researchers have developed novel solutions and technologies that have the potential to disrupt various industries. We have published 10 patents and received 5 patent grants. These patents are not only to showcase our research excellence but also to hold promise for commercialization and industry collaboration.

- **Collaboration with Other Departments:** Our department actively collaborates with other departments within the university on interdisciplinary research projects. By leveraging diverse expertise and resources, we have successfully tackled complex research challenges and significantly contributed to interdisciplinary fields such as data science, artificial intelligence, and cyber security. Our ability to foster interdisciplinary collaboration is a key strength that aligns with the research objectives of Anna University.

- **Research Facilities and Infrastructure:** Our department has already established several specialised research centres and labs focusing on specific IT domains like **Blockchain Lab, AR/VR Lab, ML Lab, Industrial Robotics Lab, Mobile Robotics Lab, and IoT Lab.** These centres serve as hubs for collaborative research, providing a conducive environment for interdisciplinary exchange and fostering a vibrant research community. The proposed IT Research Center would build upon these existing strengths and consolidate our research efforts in a unified manner.

- **Faculty Achievements:** Faculty crew with above 70% Doctorates with Certified International Engineering Educators (IUCEE). Faculty received the Global Teacher Award from AKS Education, Delhi and the Best Paper Award from Wyzykowski University, Poland. Faculties acted as reviewers in various reputed journals like Elsevier and session chair for the International Conference of Jan Wyzykowski University, Poland.

- **Graduates' Achievements:** Our graduate students have consistently excelled in their research endeavours, receiving accolades and awards at national and international levels. Many of our graduates have presented their research findings at prestigious conferences and have secured positions in top-tier research institutions and industry organizations. Students got various mentorships in Cod{on}Fest, The Uplift, Script Foundation, Acelt, and Let’s Grow More and were selected as evaluators for the Smart India Hackathon 2022. We have an excellent placement record of 92% with the highest package of 8.5 LPA.

- **Collaborative Research Projects:** We have successfully initiated and executed numerous collaborative research projects both within the university and with external academic institutions. These projects have resulted in significant research outcomes, such as the

development of innovative algorithms, the creation of large-scale datasets, and the advancement of knowledge in specialized IT domains. Our ability to collaborate effectively enhances the impact and visibility of our research initiatives.

- **Contribution to Society:** Our department is committed to conducting socially relevant research that addresses pressing societal challenges. For instance, we have undertaken projects focused on healthcare technology, leveraging IT solutions to enhance medical diagnosis, treatment, and patient care. Additionally, we actively contribute to initiatives promoting digital inclusion and sustainable development, harnessing technology to create a positive impact on society.

List of Anna University Recognized Supervisors

Sl. No	Supervisor Name	Reference Number	Research Area	Mail ID	No. of Scholars Registered
1	Dr Suresh Kumar K	4140067	Web Security, Cloud Computing, Wireless Communication, Image Processing	sureshkumar@saveetha.ac.in	3
2	Dr Nalinipriya G	4140168	Cloud Computing Machine Learning Bigdata Bio-Informatics Data Science Block Chain Technology	dr.g.nalinipriya@gmail.com	4

LIST OF MAJOR EQUIPMENT

S.No	Name of the Equipment	Invoice Number	Date	Cost in Rs,
1	Nvidia A100 Server	SS.CHE/2122/2251	24.2.2022	17,15,000
2	DELL Poweredge Rack Server	SS/CHE/2222/2251	24.2.2022	6,20,000
3	Poweredge R450 Server	SS/CHE/2223/613	13.7.2022	3,45,000
4	LoRaWAN IoT Retrofit Module for Sensors and Application Development	ETS/22-23/IN/511	23.1.2023	2,20,000
5	Delta PLC & Accessories	ETS/22-23/IN/511	23.1.2023	1,88,850
6	NVIDIA DGX H100 AI Server	SS/CHE/2324/402	14.06.2023	3,12,70,000
TOTAL				3,43,58,850

LIST OF SPECIAL EQUIPMENT

S.No	Name of the Equipment	Invoice Number	Date	Cost in Rs
1	Oculus quest	MAA4-1160	21.06.2021	77,640
2	Doosan Cobot - Industrial Robot- M1013- 10K payload 1300 MM REACH	GST/8/2021-22	28.04.2021	22,90,00
3	SVM Vision Module	GST/8/2021-22	28.04.2021	1,85,000
4	AG-95 Adaptive Gripper	GST/21/2021-22	10.07.2021	2,75,000
5	Schmalz Suction Pump Kit for Cobot	GST/21/2021-22	10.07.2021	2,85,000
			Total	15,91,640

BLOCKCHAIN LAB

LIST OF EQUIPMENTS

Lenovo Workstation TS P348- B560 - 30 Nos.

- ES TW 11th Generation
- Intel CoreTMM;7-11700 Processor(2.50GHz upto 4.90GHz)
- 16GB DDR4 3200MHz UDIMM 1TB SATA Hard Disk Drive
- 7200 RPM NVIDIA T-100 2GB GDDR6
- Graphic Dongle Mini DP to HDMI
- Lenovo Think Vision E22-20 21.5"
- FHD Monitor Lenovo Keyboard and Mouse

SOFTWARES

- Ethereum
- Ganache
- Truffle

CYBER SECURITY LAB

LIST OF EQUIPMENTS
Lenovo Workstation TS P348- B560 - 30 Nos.
- ES TW 11th Generation
- Intel CoreTMM;7-11700 Processor(2.50GHz upto 4.90GHz)
- 16GB DDR4 3200MHz UDIMM 1TB SATA Hard Disk Drive
- 7200 RPM NVIDIA T-100 2GB GDDR6
- Graphic Dongle Mini DP to HDMI
- Lenovo Think Vision E22-20 21.5"
- FHD Monitor Lenovo Keyboard and Mouse

SOFTWARES
Kali Linux, Nmap, Snort, Wireshark

INDUSTRIAL ROBOTICS LAB

LIST OF EQUIPMENTS
- Assembled Mid End Workstation Computer: AMD Ryzen 5 3600 4.2Ghz/Logitech Keyboard and Mouse
- Intel RealSense Depth Camera D435i with mounting and Kotak tripod
- Auto Glue dispensing unit with Ethernet 14DI/10DO
- Schneider PLC-TM200 with Ethernet 14DI/10DO
- Polishing tool with mounting and Control accessories
- Stylus/Pen Tool
- PCB drilling Unit
- Conveyor- 3000mmx300mmx1000 mm Aluminium
- Dobot Magician Advanced Educational Plan
- Conveyor assembly for magician advanced
- SVM-Vision Module
- AG-95 Adaptive Gripper
- SchmalzSuction Pumpkit for Cobot
- Schmalz 120 piece Starter Kit
- Workstation with NVidia GPU

SOFTWARES
- RoboDk Educational Software Licence
- M1013-10kg payload, 1300mm reach 6FTS, Teach pendant, Cockpit License, DART-30 user and 2 concurrent user license

● 3D manufacturing simulation software .Visual Components

AR/VR LAB

LIST OF EQUIPMENTS

● Top end Workstation - 9 nos.

AMD Ryzen 7 3700x4.4Ghz / MSI B 450M PRO VDH Max Mother Board / 450 Crucial 2666 Mhz DDR4 8GB x 4Nos RAM / Kingston A400 480GB SSD / NVIDIA GeForce RTX 3060h 8GB DDR6 / Corsair ATX Cabinet/Corsair CV650 (650W) SMPS / LenovoThink Vision S24e:23-8"" VA Borderless FHD VGA + HDMI + Audio out (S24e-10)Aspect Ratio 16:9, Resolution 1920 x 1080, Brightness-250/Logitech Keyboard & Mouse, Additional Hard disk Seagate 1TB Hard disk, Windows 10 Home Oem"

● Mid-end Workstation - 21 nos.

AMD Ryzen 5 3600 4.2Ghz / MSI B 450M PRO VDM MAX Mother Board / Crucial 2666 Mhz DDR4 8GB x 2Nos RAM / Kingston A400 480GB SSD/NVIDIA GeForce GTX/660 6GB DDR6/Corsair ATX Cabinet / Corsair Vs 500(500W)/Lenovo Think Vision S24e:28.4"" VA Borderless FHD VGA + HDMI + Audio Out (S24e-10) Aspect Ratio 16:9, Resolution 1920x1080, Brightness 250/Logitech Keyboard ^ Mouse, Additional Harddisk Seagate 1TB Harddisk, Windows 10 Home Oem"

● Oculus - Quest 2 Advanced All-In-One Virtual Reality Headset-256GB B08FTPTF54(OCQST2256W)

SOFTWARES

● Android studio with Emulator
● Unity
● Visual Components
● Unreal Engine
● Maya
● Visual Studio

MACHINE LEARNING LAB

LIST OF EQUIPMENTS

● Top end Workstation - 1 no

AMD Ryzen 7 3700x4.4Ghz / MSI B 450M PRO VDH Max Mother Board / 450 Crucial 2666 Mhz DDR4 8GB x 4Nos RAM / Kingston A400 480GB SSD / NVIDIA GeForce RTX 3060h 8GB DDR6 / Corsair ATX Cabinet/Corsair CV650 (650W) SMPS / LenovoThink Vision S24e:23-8""

VA Borderless FHD VGA + HDMI + Audio out (S24e-10)Aspect Ratio 16:9, Resolution 1920 x 1080, Brightness-250/Logitech Keyboard & Mouse, Additional Hard disk Seagate 1TB Hard disk, Windows 10 Home Oem"

● Mid-end Workstation - 2 nos.

AMD Ryzen 5 3600 4.2Ghz / MSI B 450M PRO VDM MAX Mother Board / Crucial 2666 Mhz DDR4 8GB x 2Nos RAM / Kingston A400 480GB SSD/NVIDIA GeForce GTX/660 6GB DDR6/Corsair ATX Cabinet / Corsair Vs 500(500W)/Lenovo Think Vision S24e:28.4"" VA Borderless FHD VGA + HDMI + Audio Out (S24e-10) Aspect Ratio 16:9, Resolution 1920x1080, Brightness 50/Logitech Keyboard ^ Mouse, Additional Harddisk Seagate 1TB Harddisk, Windows 10 Home Oem"

- Desktop Computer - 28 nos.

Intel core i7-10700K CPU 8 cores up to 4.8GHz LGA1200 Disti Box CPU / Intel Thermal Solution BXTS15A (Processor Fan)/Asus Prime H410M-CS Mother Board / Crucial 16GB DDR4 2666 / Seagate 1TB Harddisk / GeForce GT 710 2GB DDR3 Graphic Card / Foxin Cabinet + SMPS(450W) / Logitech Wired Keyboard Mouse / Cabinet Fan / DELL /21.5 Monitor E2218HN /3 Year onsite warranty & Support"

SOFTWARES

- Proteus
- STM32CUBE IDE
- Model sim
- Quartus
- TensorFlow
- CUDA C
- Android studio with emulator

IOT LAB

LIST OF EQUIPMENTS

- LoRaWAN IoT Retrofit Module for Sensors and application development
- Delta PLC & Accessories
- "OV2640 Binocular Camera Module CMOS STM32 Driver 3.3v1600x1200 for 3D Measurement with SCCB Interface"
- Proximity sensor (Panasonic EKMC1603111) with base PCB and Sensor Cap
- LoRa IoT Bundle pack v3

1x LPSB Multi Channel LoRa WAN® Gateway/2x (LoRa® Shield + Antenna + Arduino UNO + USB Cable)/1x Flame Sensor/1 x Rlay Module/1 x Photosensitive Sensor/1 x Buzzer/1 x Ultrasonic Sensor/5 x LED (White)/1 x DHT11 Temperature and Humidity Sensor/10 x dupont wire (Male to Male)/10 x dupont wire (Female to Female)/10 x dupont wire (Female to Male)

- Raspberry PI IoT Bundle Pack with LoRaWAN Raspberry PI 4-4GB RAM/32GB Class 10 Micro SD Card installed with Noobs OS/Heat Sink with Cooling Fan/Power Adaptor with USB

Cable/Micro HDMI to VGA Converter/Micro HDMI to HDMI Converter/Experimental Manual Available Sensor Interfaces/ADXL345 - Tripple Axis Accelerometer Sensor (SMD Type)/SHT31 - Temperature & Humidity Sensor (SMD Type)/3x3 Channel Relay/3 RGB LED/2 Push Botton/Buzzer/OLED displayPorts available for External Interface/UART/SPI/I2C/8 Analog I/O/31GPIOs to interface external sensors/4 USB 2.0 port/3.5mm analog audio-video jack/5x5V Power

Supply/3x3.3V Power Supply/HDMI output/Camera Serial Interface(CSI)/Display Serial Interface(DSI)

SOFTWARES

- Arduino IDE
- STM32CUBE Programmer
- STM32CUBE IDE
- WPL Soft