

VOLUME NO. 2 // ISSUE NO. 8 // JUN 2024

# HASHTAG

#ITNLJUN2024

DEPARTMENT OF INFORMATION TECHNOLOGY



SRI VENKATESWARA COLLEGE OF ENGINEERING  
Sriperumbudur - 602 117 (Autonomous - affiliated to Anna University)



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# HASHTAG

## DEPARTMENT VISION

To produce higher calibre technologists and scientists for helping the country to attain new heights in Information Technology research and industrial needs to provide leadership in the field of technical education.

## DEPARTMENT MISSION

1. To develop the department into a “Centre of Excellence in Information Technology” offering engineering education to the students at Undergraduate, Postgraduate and Doctoral degree levels.
2. To build students' total personality emphasizing ethical values, and nurture them to meet the growing challenges in the Information Technology industry.
3. To examine the research challenges and cater diverse societal needs of the Nation.

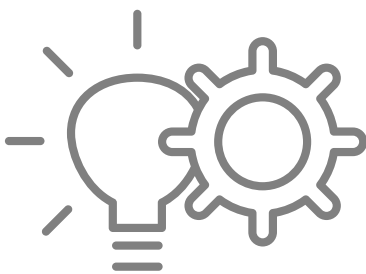
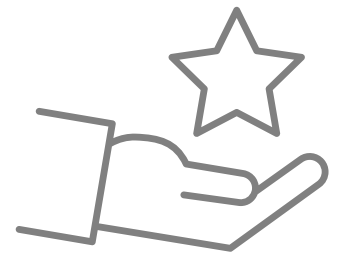
## PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The graduates of Information Technology program will demonstrate themselves as leading professionals.



The graduates of Information Technology program will be equipped with the necessary skills to become proficient researchers.

The graduates of Information Technology program will demonstrate their abilities as successful entrepreneurs.



The graduates of Information Technology program will excel in higher studies or modern administrative services.

## PROGRAM OUTCOMES (POs)

- **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **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.
- **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.
- **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.
- **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.

# HASHTAG

- **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.
- **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **Individual and team work:** Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
- **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.
- **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.
- **Life-long 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.

## PROGRAM SPECIFIC OUTCOMES (PSOs)

**The B.Tech Information technology programme demonstrates the following two Programme Specific Outcomes (PSOs):**

1. Exhibit proficiency in examining standard business operations in order to create and implement suitable Information Technology solutions.
2. Demonstrate the ability to establish an IT infrastructure, effectively manage resources, and ensure data security.

## STUDENT CORNER

### NCC CAMP

**Sathyajitanand V and Thiwahar B** of III year IT B (2022-26 batch) attended NCC camp CATC-1 from 12.06.2024 to 21.06.2024 at Sathyabama Institute of Science and Technology.





## STUDENT CORNER

## TRAINING PROGRAMME

**Naresh M** of III year IT A (2022-26 batch) has successfully completed the Microsoft Excel Training Program, conducted by Magnetic Beacon Analytics from 12th June, 2024 to 19th June, 2024.



## STUDENT ACHIEVEMENTS

### PLACEMENT CORNER



**Bhaskar G** of final year got an offer from TechLivz with a salary package of **6 LPA.**



**Dhanapradha D** of final year got an offer from TechLivz with a salary package of **6LPA.**

## STUDENT ACHIEVEMENTS

### PLACEMENT CORNER

**Dharun Darsan R Y** of final year got an offer from TechLivz with a salary package of **6LPA.**



**Naveen Akash K** of final year got an offer from TechLivz with a salary package of **6LPA.**

**Oviya Srinivasan** of final year got an offer from TechLivz with a salary package of **6LPA.**

## STUDENT ACHIEVEMENTS



**Keerthana R E** of final year got a three-month intern from OrbDoc with a stipend of **Rs.12,000/month.**



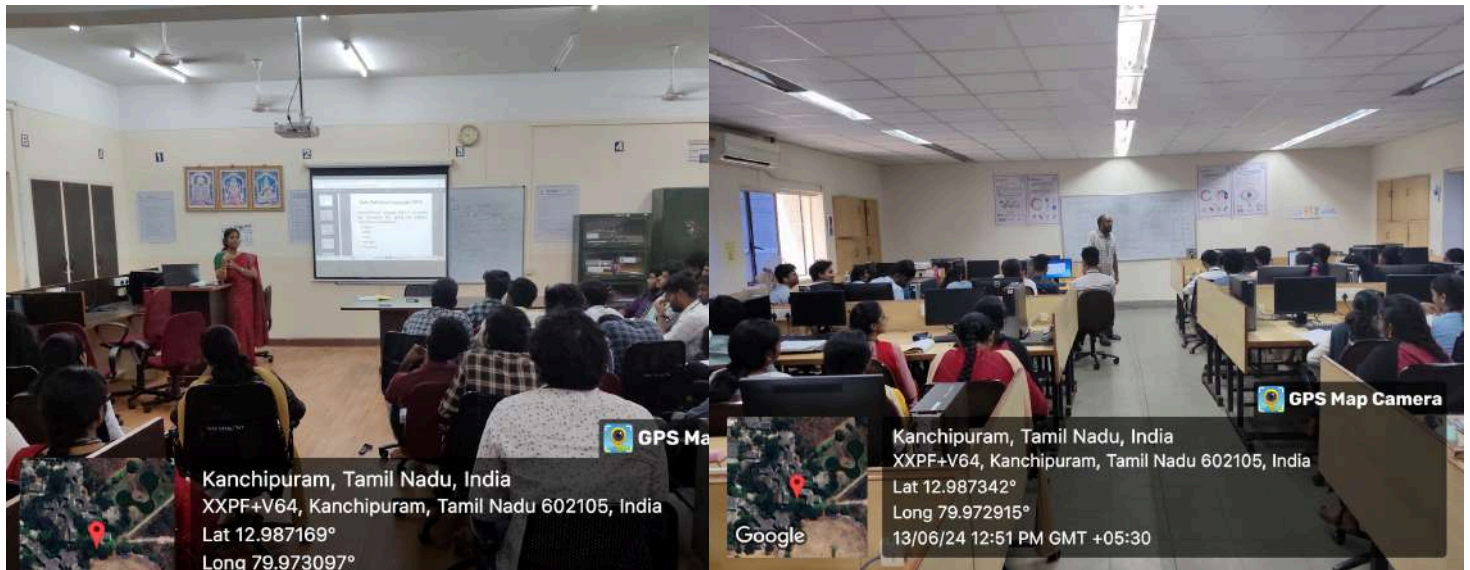
**Pragatheeshwar S** of final year got a three-month intern from OrbDoc with a stipend of **Rs.12,000/month.**

## PLACEMENT CORNER

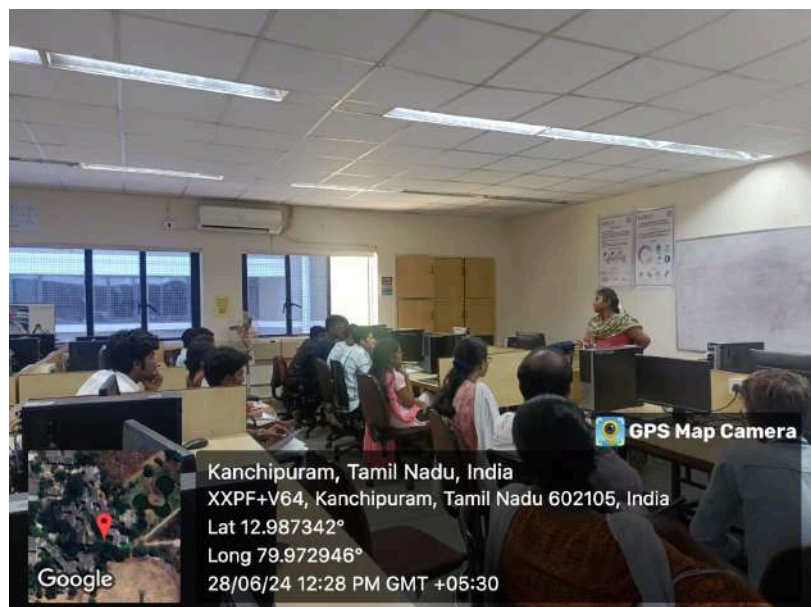
Online Mock Placement test was conducted for final year students on 13.06.2024, 15.06.2024, 19.06.2024, 22.06.2024.

## PLACEMENT CORNER

Placement Core Technical Training was organised for final year IT students from 11.06.2024 to 15.06.2024.



Placement Programming training was organised for final year students of IT, Mech, Auto, Civil, Biotech departments from 17.06.2024 to 29.06.2024.



## 2020-2024 BATCH STUDENTS



### **Congratulations Students,**

Congratulations on your incredible achievement! As you embark on this new chapter, remember the memories, friendships, and lessons from your time here.

May your future be filled with success and happiness. We are so proud of you and excited to see what you will accomplish next.

*Best Wishes*

### **Final Year IT A**

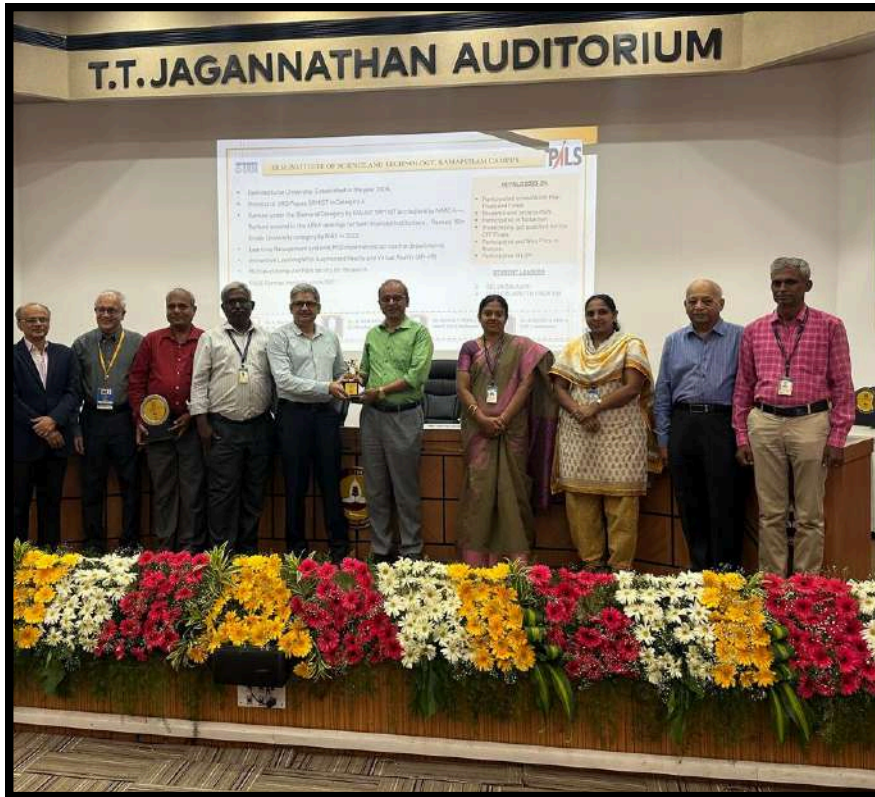


### **Final Year IT B**



## FACULTY CORNER

**SVCE** received one of the **best performer award** under **PALS**.



## Resource Person

**Mr. E Sivakumar**, delivered an invited talk titled **“Business Model Innovation: Prototyping New Revenue Streams”** at SIMATS Engineering, on June 28, 2024.



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28/06/24 02:54 PM GMT +05:30



## Journal Publication



MR. V. RANJITH



DR. C. YAASHUWANTH

published an article titled **“Energy Efficient and Reliable High Quality Video Transmission Architecture for Wireless Sensor Networks”**, in the journal Tehnički vjesnik Vol. 31, No. 3, 2024, ISSN – 1330–3651 (Print), ISSN 1848–633.

ISSN 1330-3651 (Print), ISSN 1848-6339 (Online)

<https://doi.org/10.17559/TV-20230912000934>  
Original scientific paper

### Energy Efficient and Reliable High Quality Video Transmission Architecture for Wireless Sensor Networks

Ranjith V\*, Yaashuwanth C, Prathibanandhi K, Jayasankar T

**Abstract:** Due to advancements in the technology, video transmission is a key feature in several applications. The transmission of the video from the source to the sink is quite different from the transmission of images-based data. The transmission of the video over the wireless sensor network is not an easy task with the available protocols. They have several disadvantages related to the energy efficiency and the reliability. Novel architecture namely high-quality video transmission architecture has been proposed in this paper. This is an energy efficient architecture. To conserve the energy during the transmission, this architecture does not support retransmission of the packets. But the dropping of the packets helps in improving the reliability and the life time of the network. This architecture majority involves three layers namely the application layer, the network layer and the transport layer. The transmission of the data packets is based on the priority levels. Moving Picture Experts Group (MPEG - 2) technologies is used in the proposed work. Two different frames namely the key frame and the variant frame are used to prioritize the packets. The data packets with the highest priority from the variant frame is transmitted first and then followed by the data packets of the key frame. The data is segmented into smaller units and discrete cosine transform is applied over each unit. The inter link between the transport layer, application layer and the network layer is analysed by means of the state diagram. The results have been tabulated and depicted by means of graphical representations. Comparative analysis has been made between the proposed high quality video transmission architecture and the diversified architecture. The proposed method has been found to have produced comparatively better results and possesses a high quality video transmission with enhanced Peak Signal to Noise Ratio (PSNR) and reduces energy consumption.

## Paper Presentation in Conferences



**DR.C.YAASHUWANTH**

published his papers in **IEEE conferences**.

**"MoodVue: A Smart Mirror with Emotional Intelligence"**, Intelligent Computing and Control for Engineering and Business Systems (ICCEBS),  
<https://doi.org/10.1109/ICCEBS58601.2023.10449150>, IEEE, 2023.

**"FAULT DETECTION AND PREVENTION WITH ENERGY MONITORING SYSTEM"**, Intelligent Computing and Control for Engineering and Business Systems (ICCEBS),  
<https://doi.org/10.1109/ICCEBS58601.2023.10448830>, IEEE, 2023.

**"RFID CARD BASED PETROL PUMP AUTOMATION SYSTEM"**, Intelligent Computing and Control for Engineering and Business Systems (ICCEBS),  
<https://doi.org/10.1109/ICCEBS58601.2023.10448930>, IEEE, 2023.

**"SUBMERSIBLE WATER PUMP WITH SAND AND SEDIMENT FILTER"**, Intelligent Computing and Control for Engineering and Business Systems (ICCEBS),  
<https://doi.org/10.1109/ICCEBS58601.2023.10449035>, IEEE, 2023.

## EVENTS ATTENDED

**Dr. V. M. Sivagami, and Dr. D. Jayanthi,** attended the National Level Online Workshop titled “Ai Tools for Teaching Learning Process” on 10.06.2024 organized by A.C.T. Academy.



**Dr. V. M. Sivagami, and Dr. D. Jayanthi,** attended a Faculty Development Program on “Recent Technologies and Tools in Computing Domain”, organized by the Jerusalem College of Engineering from 12.06.2024 to 18.06.2024.



## CSI WEBINAR

**CSI -SVCE** Student Chapter organized an online webinar on " Predictive analysis in Health care" on **June 8th & 9th 2024** (6 to 7 pm).



**SVCE** Sri Venkateswara  
College of  
Engineering

**CSI - SVCE STUDENT CHAPTER**  
Presents

**Webinar On**  
"PREDICTIVE ANALYSIS IN HEALTH CARE"

**SATURDAY & SUNDAY,**  
**08 & 09 JUNE**  
**06 PM - 07 PM**

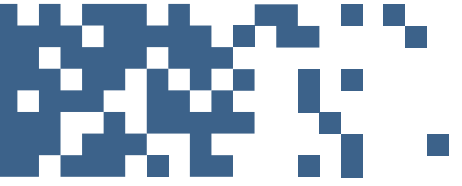
**GOOGLE MEET**

**COORDINATORS**  
**DR V.VIDHYA ,CSI-SBC**  
**V.RANJITH ,AP/INT**

**ELSA SHARU JOHNSON**  
B.Tech., M.Tech.  
Instrumentation & Control Engineering,  
NIT- Tiruchirappalli, TN

**JOIN US** <https://meet.google.com/wui-ngid-bjp?pli=1>

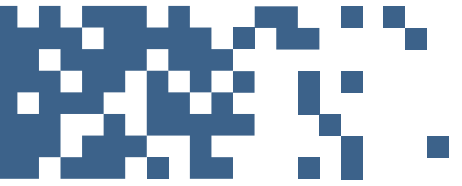
## International Yoga Day event



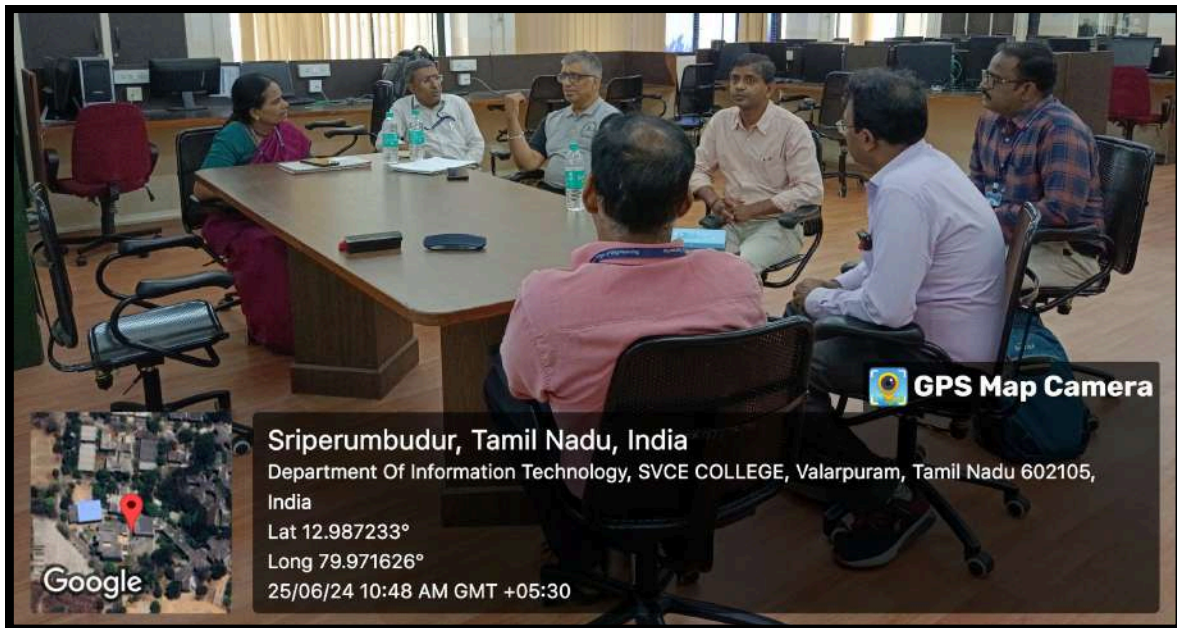
Mr. E Sivakumar, coordinated **International Yoga Day event** along with NCC on **June 21, 2024**.



## Visit by Spheruler Solutions



On June 25, 2024, **Mr Karthikeyan and Mr Gurushankar, (Alumni of IIT) Spheruler Solutions Private Limited (startup at IITM park)** visited our campus. During their visit, we proudly showcased our department's vision and mission, strengths, and ongoing student projects. Their efforts received high appreciation and recognition.



## PROGRAMMES OFFERED

- B.Tech Information Technology
- M.Tech Cyber Forensics and Information Security
- Doctor of Philosophy (Ph.D)



## CONTENT COMPILATION



**Dr. V. Vidhya**  
HOD/IT



**Dr. P. Sharon Femi**  
Associate Professor



**Mr. N. Selvaganesh**  
Assistant Professor

## NEWSLETTER EDITORS

**Dr. P. Leela Rani**  
Associate Professor



**A. Aarthi**  
II Year IT-A



**M. Buvarna Rithika**  
II Year IT-A



**S. Keerthana**  
II Year IT-A



**Sanjana Madankumar**  
I Year IT-B



## DEPARTMENT OF INFORMATION TECHNOLOGY

### SALIENT FEATURES

- Pioneered the introduction of the B.Tech IT degree programme.
- Centre of Excellence in Data Science & Cybersecurity
- Autonomous, Choice Based Credit System and Industry driven curriculum.
- Scope to acquire B.E. / B. Tech. (Honours) or Minor Degree.
- State-of-the-art facilities & industry supported laboratories.
- Interdisciplinary industry oriented research projects.
- Merit, Economic means, Merit-cum-Economic means & Sports scholarships to the deserving students.
- Excellent Career guidance - placement /masters in abroad universities / Civil services examinations / entrepreneurship.
- Sponsorship for professional skill development, Extra Curricular and Co-curricular activities.
- MoUs with various industries.
- An exclusive product development centre.



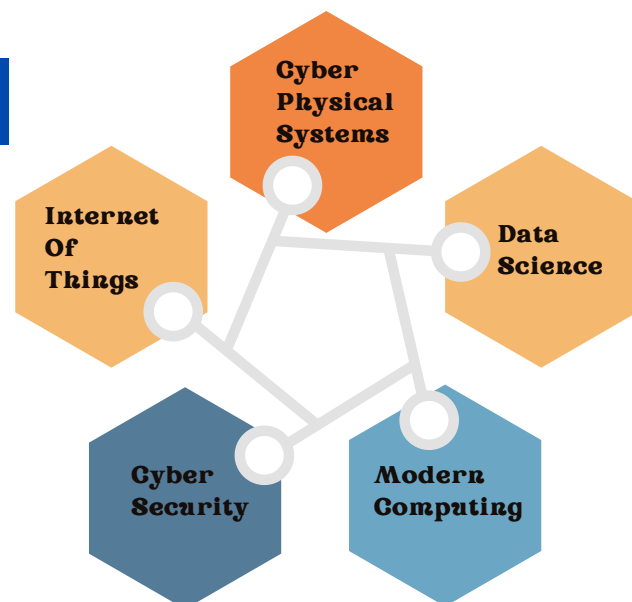
### PROGRAMMES OFFERED

- B.Tech Information Technology
- M.Tech Cyber Forensics and Information Security
- Doctor of Philosophy (Ph.D)

#### CAMPUS ADDRESS

Sri Venkateswara College of Engineering ,  
Post Bag No.1, Pennalur Village, Chennai - Bengaluru  
Highways, Sriperumbudur (off Chennai) Tk. - 602 117  
Tamil Nadu, India

### Research Themes





## DEPARTMENT OF INFORMATION TECHNOLOGY



# M.Tech CYBER FORENSICS & INFORMATION SECURITY



## About

M.Tech Cyber Forensics and Information Security is a comprehensive 2 years PG program designed to equip students with the knowledge and practical skills necessary to excel in the field of cybersecurity.

■ CHIEF INFORMATION SECURITY OFFICER

■ FORENSIC COMPUTER ANALYST

■ INFORMATION SECURITY ANALYST

■ PENETRATION TESTER

■ SECURITY ARCHITECT

■ IT SECURITY ENGINEERS

■ SECURITY SYSTEM ADMINISTRATOR

■ IT SECURITY CONSULTANT

## ELIGIBILITY



BE or B.Tech in

- Information Technology
- Computer Science and Engineering
- Electronics Engineering
- Electronics and Communication Engineering
- Information Security and Digital Forensics
- Other relevant branches from recognized institutions



## FINANCIAL SUPPORT

Management Scholarship

Merit + Merit cum means + Economic means + Sports Scholarship

AICTE - PG Scholarship

Rs.12400 per month for 24 months for GATE/GPAT qualified PG students.

UGC - Post-Graduate Indira Gandhi Scholarship

For single girl child for PG programs Rs.3100 per month for 20 months.

Scholarships @ Rs.7,800/-per month (ME/M.Tech)

Contingency A @ Rs.15,000/- per annum (ME / M.tech)

- Tuition fees waiver (Rs.50,000/year) for 30% of the student class strength on merit basis as applicable.
- Management scholarships under economic means and merit cum means for tuition fees and assistance for books and instruments.
- Financial assistance to support innovative PG Projects under intramural research grant scheme.
- Sponsorship for students to attend conferences.

**Check out the website for more information or contact us**

## SUPPORT FOR PG STUDENTS

- Student research day to appreciate innovative research projects
- Providing placements in Information Technology based core companies such as CTS, TCS, Infosys, Accenture, Wipro, Ericsson
- Outstanding PG student award for a final year PG student.
- NPTEL, MOOC, Coursera and AWS certification courses are available.
- Students are encouraged to compete for awards such as TNSCST, INAE, Gandhian award and so on.
- Encouraging students to publish the research work in reputed national and international journals
- Career guidance and Counselling support provided. The Department has six functional MoU's with industries like Gemini communications, WriteIT and Infoziant (P) Ltd.. which in turn helps the student for internship, training and placement
- Industrial visits and guest lectures by Subject Matter Experts from institutions and industries to improve research and academic activities
- Students can access IEEE, Springer, ACM, Elsevier and reputed Journals in the campus which helps them to carry out their project and research work effectively
- Encouraging students leaderships quality by organising National level technical symposium
- Horizon - A technical research magazine of IT department gives the opportunity to students to showcase their innovative research ideas

