

# Indian Institute of Information Technology Sri City Chittoor (Institution of National Importance under an Act of Parliament)

# MTech in Cyber Security Information to Candidates

(GATE Category)

# **About IIIT Sri City**

IIIT Sri City (IITS) was established in 2013 as an Institute of National Importance under an Act of Parliament by the Government of India along with the Government of Andhra Pradesh and Industry Partners-Sri City Foundation.

# **Location- Industrial City**

The institute is located as an integral part of the industrial town Sri City, about 60 KMs from Chennai on the Nellore Highway. Sri City is spread over 8000 acres encompassing a multi-product Special Economic Zone, Domestic Tariff Zone, Free Trade & Warehousing Zone and Electronics Manufacturing Cluster. Sri City is hosting over 200 manufacturing companies from 29 countries. Sri City hosts MNCs from Japan, China, Korea, UK, Netherlands etc. IIITS is located alongside Sri City industrial town. The institute has access to the industries and social infrastructure available in Sri City (www.sricity.in) through the Industry Partners.

#### **Highly Qualified Faculty**

IIITS aspires to be a Nationally Relevant and Globally Competitive Entrepreneurial Institution for Information Technology Education, Research and Development. We strongly believe in the philosophy that good faculty can guide the students' learning and shape their careers. Hence, the institute has carefully planned and on boarded faculty members who are alumni of globally known institutions. Many of them have received PhDs from IITs/IISc or top overseas universities. Notably, all our faculty members have unique research or industry experience. The institute has a special thrust to attract and retain talented faculty members who can make a mark in excellence teaching and research at the international level. The current team of faculty members at IIITS is from leading universities from India and abroad with excellent teaching and research credentials. Visit: www.iiits.ac.in/people/regular-faculty/

# **Research & Development**

The faculties are quite active in their research; and importantly are able to translate their knowledge and experience into academic and research advancements of students. Over the last 5 years, the faculty have secured around 20 sponsored projects. These projects are funded by several Govt of India agencies such as DST, MEITY, DRDO, and ISRO and industries such as NVIDIA, Hella Automotive, etc. IIITS has significant focus on UG- research, sponsored projects and scholarly publications.

The Design Innovation Centre (DIC) at IIIT Sri City is working towards promoting a culture of innovation and creative problem solving, undertaking systematic design through projects,

enhancing interdisciplinary design-focused innovation, etc. Over the last 5 years, our faculties have got 80+ journal publications and around 100 national/international conference publications, while being at IIIT Sri City.

#### **BTech Programmes**

Established in 2013, IIIT Sri City Chittoor (IIITS) has emerged as one of the top institutes among its peers due to academic and research advancements. The institute presently offers BTech programmes in two disciplines- Computer Science and Engineering (CSE) and Electronics and Communication Engineering (ECE). With a view to provide skilled engineers, the Institute is offering BTech specializations in AI & Machine Learning, Cyber Security and Data Science under CSE programme. ECE programme offers specialization in Cyber Physical Systems.

#### **Innovation and Entrepreneurship**

IIIT Sri City, Chittoor promotes a culture of innovation and entrepreneurship that will help to grow the institute, while also helping faculty and students to fulfil their potential and to serve the needs of the community. We foster entrepreneurship and innovation through the following ways

Gyan Circle Ventures: Gyan Circle Ventures (Centre for Innovation and Entrepreneurship Development at IIITS (CIEDI), a Section 8 Company) is the Technology Business Incubator of IIIT Sri City. The center is funded by Ministry of Information Technology (MeitY) under TIDE 2.0 as a Group 2 Centre to promote deep-tech entrepreneurship through financial and technical support to incubators engaged in using emerging technologies such as IoT, AI, Block-chain, Robotics etc. in areas including manufacturing, education, Smart Cities, etc. Students get the opportunity to engage with the Startups supported by Gyan Circle Ventures, the TBI funded by MeitY under TIDE 2.0 scheme.

Institute Innovation Cell: Ministry of Education, Govt. of India has established the Ministry of Education's Innovation Cell (MIC) (https://www.mic.gov.in/) to systematically foster the culture of Innovation amongst all Higher Education Institutions (HEIs) pan India. The primary mandate of MIC is to encourage, inspire and nurture young students by supporting them to work with new ideas while they are in formative years. Indian Institute of Information Technology, Sri City, Chittoor is one of the institutes to be selected for establishing the Ministry of Education – Institute Innovation Council (IIC).As an IICs our students and faculty will have ample opportunities to routinely interact with MIC and to participate in various Innovation initiatives and Atal Ranking of Institutions on Innovation Achievements (ARIIA) by Govt. of India.

<u>E-cell @ IIIT Sri City</u> Support and enable you to create innovative ideas and convert them into business opportunities. Prepare you to take up jobs in high tech startups and be successful partners in growing the organizations. E- Cell @ IIIT Sri City will be undertaking many of the following activities in order to help students learn the intricacy of entrepreneurship and Intrapreneurship by practicing it.

# **Industry Engagements**

IIITS engages tightly with many IT and ECE companies with multiple objectives, for placement and internship opportunities, for research collaboration, as co-coordinators for workshops, and invited speaker participation for various technical events. The companies IIITS ties-up with are not just big MNCs but also successful startups. A team of faculty visit various companies in major cities such as Bangalore, Hyderabad, and Chennai. We conducted workshops in Bangalore and Chennai where we invited key speakers from various MNC and startups; we took some representative students from

our institute for these workshops. Our experience shows that such workshops stimulate creative discussions among students, faculty, and industrialists leading to synergistic partnerships.

A collaboration has been established by IIIT Sri City through a MOA with Data Security Council of India (DSCI- www.dsci.in), set up by NASSCOM for conducting joint academic and research programs in Cyber security. The MoA is part of preparation to support a new BTech specialization in Cyber Security launched by IIIT Sri City. The MOA is designed to have Hackathons, Niche skill building training programmes, Collaboration projects, Market research and Workshops on Cyber Security and privacy in various DSCI initiatives like Skill building, Cyber security industry building and any other similar programmes.

The institute also conducted various workshops with extensive involvement and participation: The names of the workshop are as follows: Workshop on Industrial Applications of AI & Machine Learning, Workshop on Cyber Security Technologies and Applications, Workshop on Socially Relevant Technical Education, and Workshop on Information Security.

#### **Campus Infrastructure**

In 2018, we moved to our new campus, which hosts the best in class infrastructure to support high-quality learning and living environments. Each floor of the building has designated spaces including state of the art air-conditioned classrooms, labs, and faculty cabins and student activity centers. Currently, we have two blocks of hostels and a large dining facility. A large complex of hostel rooms and additional facilities are under construction.

#### **Inclusive Learning**

IIITS emphasizes and encourages students to be self-learners, gain experiential learning through involvement in developmental activities. We also believe that in the long-run, an individual's success is decided not only by the technical skills but also by his or her social behaviour, leadership skills and ability to work in diverse teams. Inclusive learning is ensured in multiple levels of engagements-among students to develop leadership and team working skills, help fellow students who require additional training and be able to serve the communities around them. The institute has more than 15 clubs comprising technical, cultural and social domains. The technical clubs take up activities relating to competitive programming, external projects, workshops on thematic areas, and Hackathons. The cultural club focuses on drama, music, arts and related activities throughout the year. IIITS has adopted 5 villages under **Unnat Bharat Abhiyan** and students of social clubs take up a variety of development activities with focus on children, youth and elderly.

# **MTech in Cyber Security**

Cyber security endeavours to counter the wide range of challenges that compromise the effectiveness and reliability of various aspects of cyberspace. Considering the exponential growth of digital devices and the number of users, there is an urgent requirement to develop more robust and potentially secure security frameworks. Thus, there is a need for professionally trained individuals able to understand, analyze, and offer the suitable solutions against respective cyber security challenges.

This MTech in Cyber Security programme is expected to offer students with the necessary foundations for tackling key cybersecurity challenges, and allows students to study electives which will further enhance their skills in their interested areas. The overarching objective of this program is to train students to become cyber security professionals in such a way that they can shape India's future in a better way.

#### **Senate & Programme Advisory Group**

The Senate of IIIT Sri City has senior academics from institutes like IIIT Hyderabad, IIT Madras, IIT Bombay, IIT Delhi etc. and industry experts from leading organizations such IBM, Intel, TCS etc. For Senate details visit <a href="http://www.iiits.ac.in/home/governance/senate/">http://www.iiits.ac.in/home/governance/senate/</a>

Programme Advisory Group (PAG) helps the institute formulate the curriculum and support effective delivery of the programme. The PAG of MTech Cyber Security consists of the following experts:

- 1. Mr. V. Anand Kumar
  - Director
  - Managed Security Services at IBM
- 2. Prof. Muttukrishnan Rajarajan
  - Director, Institute for Cyber Security, City University of London
- 3. Dr. Rajeev Mukundan
  - CTO Cyber Security, TCS
- 4. Mr. Sastry Krishna Pendyala
  - Partner, Ernst & Young, Hyderabad
- 5. Mr. Akhilesh Tuteja
  - Global Cyber Security Practice Co-leader, Partner KPMG
- 6. Mr. Vinayak Godse Vice President, DSCI

#### **MTech Cyber Security Curriculum**

The curriculum of MTech Programme covers a total of 64 credits, necessary for completing graduation requirements. The total number of 64 credits is divided into two parts: a) course work that spans over the first two semesters requires the completion of 40 credits and b) the industry – based project work requires the completion of 24 credits that lead to MTech Dissertation.

#### Semester 1

- 1. Introduction to Cyber Security
- 2. Algorithms and Complexity Analysis
- 3. Network and Data Security
- 4. Software Security
- 5. Cyber Security Regulations (Seminar Course)

#### **Electives:**

- 1. Threat Intelligence
- 2. Malware Analysis and Digital Forensics
- 3. Cyber Physical Systems Security
- 4. Software Defined Networking Security
- 5. Mobile and Wireless Security
- 6. Blockchain Technology

#### Semester 2

- 1. Cryptography
- 2. Machine Learning Applications for Cyber Security
- 3. Elective 1
- 4. Elective 2
- 5. Elective 3

The first batch of MTech students are likely to start their 2 –semester project in leading organizations such as Intel, Ericsson, Swiggy, Broadridge, Mercedes-Benz, etc.

#### **Admission Process for GATE Candidates**

#### **Eligibility**

- GATE candidates with B.Tech./B.E. in CSE/ECE/equivalent branches are eligible to apply for admission through Centralized Counselling for MTech (CCMT) 2021 portal.
- In the GATE category, candidates should have a valid GATE score.
- In the GATE category, candidates have to follow the procedures of CCMT for the admission.
- GATE category candidates have to choose IIIT Sri City in CCMT portal in order to get admission at IIIT Sri City.
- The eligibility criteria for the GATE candidates will be governed by the CCMT rules.

#### **Selection Process**

#### Through Centralized Counselling for MTech (CCMT 2021)

- In the GATE category, candidates should have a valid GATE score.
- GATE category candidates have to choose IIIT Sri City in CCMT portal in order to get admission at IIIT Sri City.
- Candidates have to follow the procedures of CCMT for the admission.
- The eligibility criteria for the Gate candidates will be governed by the CCMT rules.

#### **Fees**

Programme Name	Fee Details		Mess Fee
	OC/OB/EWS	SC/ST	
	Hostellers	Hostellers	
M.Tech in Cyber Security	Tuition Fee: Rs.125000/- per semester Admission Fee: Rs.15,000/- (One-time payment) (Non- refundable) Refundable Caution Deposit : Rs.15000/- (One-time payment) (Refundable) Hostel Fee: Rs.15,000/- per semester Accidental Insurance and other benefits: Rs.1000/- per annum	Tuition Fee: Rs.125000/- per semester Admission Fee: Rs.15,000/- (One-time payment) (Non-refundable) Refundable Caution Deposit: Rs.15000/- (One-time payment) (Refundable) Hostel Fee: Rs.15,000/- per semester Accidental Insurance and other benefits: Rs.1000/- per annum	·

#### **Assistance**

- All the students admitted through CCMT under GATE category will be provided the assistance in the form of stipend as per the rules of CCMT.
- At present the stipend for GATE category students is Rs. 12,400/- per month.

- As per the norms, the GATE category candidates will be assigned the teaching assistantship by the institute with on an average of 6 hours per week of load.
- It is highly encouraged for all the MTech students to take up the industrial projects in the 2nd year as part of the requirement of the MTech degree program. In such cases, the assistance from the institute will discontinue and it will be provided by the respective industries.

#### **Contact:**

For any updates related to CCMT 2021, please visit <a href="https://ccmt.nic.in">https://ccmt.nic.in</a>

For any admission process related queries, you may contact:

Dr. Neha Agrawal / Dr. Girish G N Email: mtech.admissions@iiits.in

Contact No: +91 7337327782 / +91 7337328919

For any other queries, you may contact:

Dr. R. Shathanaa (M-7337327781) Dr. Himangshu Sarma (M-9706490412)

Email: <a href="mailto:mtech.queries@iiits.in">mtech.queries@iiits.in</a>