

## ABOUT THE FDP

The primary goal of the FDP is to equip faculty members, researchers, and industry professionals with advanced knowledge and practical skills in the latest AI technologies, enabling them to apply these concepts in their respective fields, particularly in the creation and enhancement of smart systems.

The FDP provides an immersive experience, offering a blend of theoretical lectures, expert discussions, and practical sessions to ensure participants gain comprehensive knowledge and hands-on skills. Participants will explore cutting-edge applications in quantum-AI fusion, healthcare diagnostics, and ethical AI frameworks, directly addressing real-world challenges.

## ABOUT THE DEPARTMENT

The Department of Computer Science and Engineering (CSE) was established in the year 1996 since the inception of the college. The primary objective of CSE department is to provide a high-quality computer science education to students from all over India as well as abroad and across all economic strata.

The department offers an

- 1.Undergraduate degree program B.E(CSE)
2. Postgraduate degree program M.E(CSE).
3. Postgraduate degree program M.Tech(Integrated).

In 2006, the department was recognized as a Centre for Research, by Anna University to offer a Ph.D. program. Beyond academia, the department shapes societal impact through initiatives like computational thinking workshops for schools and intensive cybercrime investigation training for police, cementing its role as a dynamic ecosystem where research, industry, and community converge to shape tomorrow's tech leaders.

## ABOUT SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGG.

Sri Sivasubramaniya Nadar (SSN) College of Engineering, established by visionary philanthropist and tech pioneer Mr. Shiv Nadar (Founder and Chairman Emeritus, HCL Technologies), redefines engineering education through a transformative blend of academic rigor, pioneering research, and holistic student development. At SSN, learning is an enriching journey within a vibrant, multicultural environment. This dynamic community thrives on collaboration, creativity, and mutual growth, transforming every interaction into a step toward broader horizons.

SSN's ecosystem is a powerhouse of innovation and discovery. The college fosters a culture of excellence, inquiry, and interdisciplinary collaboration, anchored by eminent faculty who are both renowned scholars and active researchers. Students are immersed in abundant research opportunities: from participating in live projects and presenting at international conferences to contributing to peer-reviewed journals, gaining invaluable hands-on experience that builds research acumen alongside technical expertise. Education at SSN transcends classrooms. It's a lived experience where state-of-the-art facilities—advanced labs, digital libraries, and collaborative spaces—fuel intellectual curiosity. Beyond academics, vibrant extracurricular pursuits, industry partnerships, and entrepreneurial initiatives shape well-rounded innovators.

Sri Sivasubramaniya Nadar College of Engineering is more than an institution—it is a dynamic community of innovators, researchers, leaders, and changemakers. United by a shared purpose to engineer a better future, they drive progress through knowledge, discovery, and impactful application.

### Six days Faculty Development Program

On

**“Frontiers of Intelligence: Optimization & Emerging Technologies for Smart and Sustainable Systems”**

**(Hybrid mode)**

**22nd September 2025 - 27 September 2025**

**Convener**

**Dr. T.T. Mirnalinee**

**Co-Ordinator**

**Dr. K. A. Muthukumar**

**Dr. N. Ahana Priyanka**

**Dr. R. Sneka Nandhini**

**Dr. R. Neeraja**

**Assistant Professor**

**Organized by**

**Department of Computer Science and Engineering,**

**Sri Sivasubramaniya Nadar College of Engineering, Chennai.**



## RESOURCE PERSONS

**Dr. Madhan Kumar Srinivasan**  
Entrepreneur [Guest Speaker]



**Dr. Priya Ranjan**  
Director of Centre of Excellence  
Mody University, Rajasthan



**Dr. Sasirekha**  
Assistant Professor  
NITTR Chennai



**Dr. V. Sathiesh Kumar**  
Assistant Professor  
MIT Anna university



**Dr. Sabique**  
Pixel botix Technology Pvt. Ltd.  
Chennai



**Dr. Nagarajan Ganapathy**  
Assistant professor  
IIT Hyderabad



**Dr. Surya**  
Senior Dentist  
RS Dental Clinic



**Miss. Abinaya S**  
AI Engineer  
Lysa Solution



**Miss. Sruthi Padullaparti**  
Senior Engineer



**Mr. Sriram**  
Founder of WEArchitect



**Mr. Johnson Joy**  
Software Developer  
IAMNEO



**Mr. Dinesh Kumar Prabakaran**  
Product Manager  
IAMNEO



**Mr. Kanagasabapathy Rajkumar**  
Senior IOS Developer  
NTT DOCOMO Japan



## PARTICIPANTS

Academic Professionals, PG/Research Scholars, and Industry persons, who are interested in advancing their knowledge in quantum cutting-edge advancement and real-world applications from domain experts

## KEY TAKE-AWAYS

1. Healthcare Applications: AI's role in medical technologies, like image processing, liver tumor detection, and surgical robotics, is a major highlight. Ethical implications and data privacy concerns in healthcare are also explored.
2. Vibe Coding and Practical Learning: The program includes hands-on Vibe Coding sessions to bridge theoretical knowledge with real-world coding applications.
3. Emerging Paradigms: The event discusses the emerging paradigms of AI in various sectors, including defense, transportation, and IoT systems, with a focus on AI support.
4. AI Ethics in Healthcare: A session on AI healthcare data ethics emphasizes the importance of privacy and ethical considerations as AI becomes more involved in sensitive areas like health data.
5. Expert Contributions: Leading provide valuable insights on AI-driven surgical robotics and optimal transportation systems.
6. Comprehensive Coverage: The program offers a balanced mix of offline coding sessions and online expert talks, ensuring diverse learning opportunities.

## TOPICS INCLUDED

1. Vibe coding with AI tools
2. Optimal Transport with Math Modelling
3. Defense Technology in Healthcare
4. Cursor AI tool for Application Development
5. Healthcare Data Privacy and Ethics
6. Detection and Diagnosis of Liver Tumor
7. AI support for the IoT System
8. AI based Surgical Robotics
9. Multimodal bio-vital signs Monitoring
10. AI in SaaS

## REGISTRATION DETAILS

- The last date for registration is 18.09.2025 (Sunday). After successful payment completion, it is required to complete the registration in the following link,  
<https://rzp.io/rzp/aiSBesGS>
- For academicians, research scholars, UG, and PG students, Industry: Rs.500/- (Including GST)

## Address for Correspondence

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Assistant Professor

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## FDP SCHEDULE

<b>Day/Timings</b>	<b>Session 1</b> <b>08:45am - 10:15 am</b>	<b>10.15 am -10:30 am</b>	<b>Session 2</b> <b>10:45 am -12:15 pm</b>	<b>12:15 am - 01:30 pm</b>	<b>Session 3</b> <b>01:30 pm - 03:00 pm</b>
<b>Day1 (22-09-2025) Monday</b>	<b>Dr. Madhan kumar Inauguration of FDP</b>		<b>Medical Image Analysis Dr. Nagarajan</b>		<b>Building AI Agents Ms. Abinaya</b>
<b>Day 2 (23-09-2025) Tuesday</b>	<b>Vibe Coding</b>		<b>Vibe Coding</b>		<b>Vibe Coding</b>
<b>Day 3 (24-09-2025) Wednesday</b>	<b>Vibe Coding</b>		<b>Vibe Coding</b>		<b>Vibe Coding</b>
<b>Day 4 (25-09-2025) Thursday</b>	<b>Optimal Transport Dr. Priya Ranjan</b>		<b>Optimal Transport Dr. Priya Ranjan</b>		<b>Defense to Healthcare Miss. Sruthi Padullaparti</b>
<b>Day 5 (26-09-2025) Friday</b>	<b>AI Healcare data ethics Dr. Surya</b>		<b>Vision Driven Force Estimation in Surgical Robotics:Current state, Emerging Technologies, and Future Direction - Dr. Shabique</b>		<b>Vision Driven Force Estimation in Surgical Robotics:Current state, Emerging Technologies, and Future Direction - Dr. Shabique</b>
<b>Day 6 (27-09-2025) Saturday</b>	<b>AI support for IoT Systems Dr. Sathish Kumar</b>		<b>Detection and Diagnosis of Liver Tumor for Interventional Radiologist Dr. Sasi Rehka</b>		<b>Product Deployment TR kanagasabapathy</b>