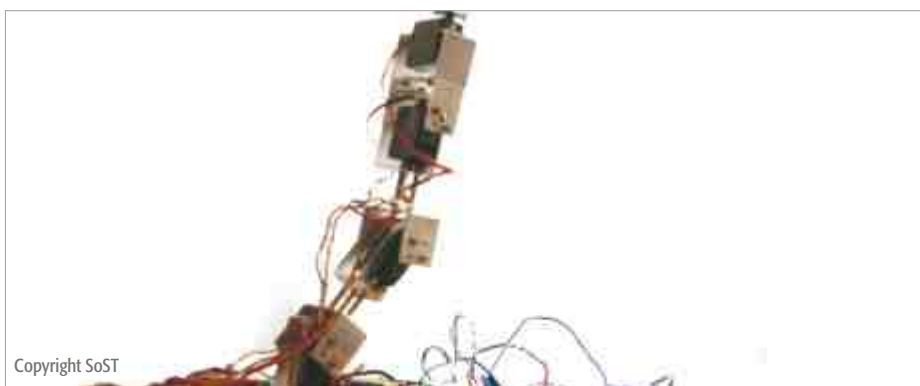


# M.Tech. IN ADVANCED INFORMATION TECHNOLOGY WITH SPECIALIZATION IN INTELLIGENT SYSTEMS AND ROBOTICS (MTECHSR)

2 years, full-time and residential



## FOCUS AREAS

- ▶ Robotics
- ▶ Intelligent Systems
- ▶ Self-Learning Systems
- ▶ System on Chip for Automation
- ▶ Machine Vision
- ▶ Artificial Intelligence
- ▶ Digital Control Systems

"We may be on the verge of a new era, when the PC will get up off the desktop and allow us to see, hear, touch and manipulate objects in places where we are not physically present." - Bill Gates

Increasingly, living on earth means living with robots and intelligent systems; sharing the planet with ever more intelligent machines that perform tasks from the mundane, like the lawn mower that cuts grass, to the highly specialized robot-doctors that carry out surgery. Robotics is a rapidly developing discipline that combines long-established areas of Electronics and Mechanical Engineering with novel approaches in Computing and the Life Sciences. Intelligent systems and easy reconfiguration have made Robotics more applicable and cost effective in industries. Intelligent systems use ideas and get inspiration from natural systems, and build on both established and novel techniques from Machine learning, Artificial Intelligence and Mathematical Optimization. This 2 years / 4 semesters regular face to face residential M.Tech. Program is designed to create professionals with strong research background. Considering the human resource requirement in the Robotics, Automation and Software based product development and Knowledge based Industry in India, the course has been designed to equip students with necessary hardware and software skills. The program strongly focuses on theoretical as well as practical aspects of System Design for hardcore industrial applications, and also providing ample scope for students to pursue research in different domains of Robotics and Future Intelligent Systems.

## ELIGIBILITY

Graduates / Postgraduates with a Bachelors Degree in Engineering / Technology in Automobile / Mechanical / Chemical /Production / Electrical / Electronics / Communication / Instrumentation / Mechanical / Computer Science / IT or MSc. Physics / Electronics or equivalent (with minimum 55 percent marks or equivalent grades)

# M.Tech. IN ADVANCED INFORMATION TECHNOLOGY WITH SPECIALIZATION IN INTELLIGENT SYSTEMS AND ROBOTICS (MTECHSR)

## COURSE STRUCTURE

SEMESTER	CODE	COURSE NAME	CREDITS
<b>SEMESTER I</b>			
	MINI-001	Engineering Sciences I	6
	MINI-002	Embedded System Design	6
	MINI-003	Control Systems	6
	MINI-004	Communication Systems Engineering	6
	MINI-005	Digital Signal Processing	6
	MINI-041	Fundamentals of AI & Robotics	6
	MINI-042	Seminar	4
	MIN-001	Life Skill Development I	6
		<b>Total</b>	<b>46</b>
<b>SEMESTER II</b>			
	MINI-006	Engineering Sciences II	6
	MINI-043	Mobile Autonomous Robots	6
	MINI-044	Artificial Vision System	6
	MINI-045	Applied Artificial Intelligence	6
	MINI-046	Intelligent System Design	6
	MINI-007	Research Methodology	6
	MIN-002	Life Skill Development II	6
		<b>Total</b>	<b>42</b>
<b>SEMESTER-III</b>			
	MINP-007	Project Phase I	36
<b>SEMESTER -IV</b>			
	MINP-010	Project Phase II	48
<b>Total Credits</b>			<b>172</b>