

**May 27-29, 2022, IIT Mandi**

<https://whrda22.iitmandi.ac.in/>

**Tentative Schedule**

**Day 1 (May 27th, 2022)**

<b>Morning Session</b> (Chair: Dr. Tushar Jain)	9:00 - 9:15	Inaugural Ceremony	Introduction to the workshop (Dr. Amit Shukla) Welcome Note by Dr. Debasish Ghose (Professor, IISc) Welcome Note by Dr. Laxmidhar Behera (Director, IIT Mandi)
	9:15 - 10:00	Drone Technology	<b>Inaugural Talk:</b> Dr. Debasish Ghose ( <i>Regulated Drone Traffic Management</i> ) (9:15 - 10:00)
	10:05 - 10:45	Haptics and Telerobotics	Dr. M. Manivannan ( <i>Affordable Medical Skills Training Simulators using Virtual Reality and Haptics</i> )
	10:45 - 11:00		Tea Break
	11:00 - 11:45	Human-Robot Interaction and Imitation Learning	Dr. Laxmidhar Behera ( <i>Imitation Learning in Robotic Systems</i> )
	11:50 - 12:55	Healthcare Robotics	Dr. Ramana Vinjamuri ( <i>Synergy-based Brain Machine Interfaces</i> ) (11:50 - 12:20) Dr. Nayan M. Kakoty ( <i>Prosthetic Hand: Commercial Versions vis-a-vis TU Bionic Hand</i> ) (12:25 - 12:55)
	13:00 - 13:30	Robotic Vision	Dr. K. S. Venkatesh ( <i>Visual Tracking of Lung Tumors</i> )
13:30 - 15:00			Poster Session cum Lunch Break
<b>Afternoon Session</b> (Chair: Dr. Amit Shukla)	15:00 - 15:30	Innovation	Mr. Ashutosh Sharma (Creating an Ecosystem for Innovation)
	15:35 - 16:20	Robotics: Dynamics, Kinematics, and Control	Dr. Subir Saha ( <i>Robotics to Cobotics and Rural----Innovative Teaching and Research Approaches</i> )
	16:20 - 16:35		Tea Break
	16:35 - 17:50	Brainstorming Session: Healthcare Robotics	Dr. Pawan Goyal
			Dr. Amit Bhardwaj
		Dr. Samrat Dutta	
		Dr. Laxmidhar Behera	
<b>Day 2 (May 28th, 2022)</b>			
<b>Morning Session</b> (Chair: Dr. Pawan Goyal)	9:00 - 10:55	Robotic Vision	Dr. Santanu Chaudhury ( <i>Omnimobility: Emergence of a New Possibility</i> )
		Drone Technology	Dr. Shubhendu Bhasin ( <i>Distributed Adaptive Coverage Control of Network of Drones: Theory to Practice</i> ) (9:50 - 10:20)
			Dr. Abhishek ( <i>Design of UAVs for Logistical Applications</i> ) (10:25 - 10:55)
	10:55 - 11:10		Tea Break
	11:10 - 13:00	Brainstorming Session: Drone Technology	Dr. Shubhendu Bhasin Dr. M. K. Padmanabhan Dr. Vikas Rastogi Dr. Kaushal Kishore

			Dr. Harikumar Kandath
			Dr. Amit Shukla
13:00 - 14:30		Poster Session cum Lunch Break	
Afternoon Session (Chair: Dr. Arnav Bhavsar)	14:30 - 15:35	Robotics: Dynamics, Kinematics, and Control	Dr. Santhakumar Mohan ( <i>Recent Trends in Rehabilitation Robots and Our Attempts</i> ) (14:30 - 15:00) Dr. Felix Orlando ( <i>Path Planning and Control of a Flexible Robotic Needle for Minimal Invasive Surgery</i> ) (15:05 - 15:35)
	15:40 - 16:25		Dr. YJ Park
	16:25 - 16:40	Tea Break	
	16:40 - 17:45	Brainstorming Session: Setting up a full-fledged Robotic institute at IIT Mandi	Dr. Santanu Chaudhury, Dr. Debasish Ghose, Dr. Subir Saha, Dr. Amit Kumar Pandey, Dr. Laxmidhar Behera
19:00 onwards		Banquet Dinner	
<b>Day 3 (May 29th, 2022)</b>			
Morning Session (Chair: Dr. Amit Shukla)	9:00 - 9:45	Haptics and Telerobotics	Dr. Oussama Khatib ( <i>The Era of Human-Robot Collaboration</i> )
	9:50 - 10:20	Robotic Vision	Dr. Tushar Sandhan ( <i>Learning the Learnability for Robotics</i> )
	10:25 - 10:55	Human-Robot Interaction and Imitation Learning	Dr. Rajesh Sinha
	10:55 - 11:15	Tea Break	
	11:15 - 12:20	Human-Robot Interaction and Imitation Learning	Dr. Tharun Reddy ( <i>Assistive Robotics in Brain Computer Interfaces</i> ) (11:15 - 11:45) Dr. Ram Bilas Pachori ( <i>Multivariate EEG Signal Processing for Diagnostic Robotics Application</i> ) (11:50 - 12:20)
	12:25 - 12:55	Healthcare Robotics	A Talk on Medical Image Processing
12:55 - 14:30		Lunch Break	
Afternoon Session (Chair: Dr. Pawan Goyal)	14:30 - 15:15	Healthcare Robotics	Dr. Amit Kumar Pandey ( <i>Bots, AI and Society: The Healthcare Applications, Challenges and Potentials</i> )
	15:20 - 15:50	Robotics: Dynamics, Kinematics, and Control	Dr. P. M. Pathak ( <i>Bond graph modeling and trajectory control of drone</i> )
	15:55 - 16:25		Dr. Shyam K Jaiswal ( <i>Stroke Rehab Challenges and Needs</i> )
	16:25 - 16:40	Tea Break	
	16:40 - 17:25	Presentation	Quanser ( <i>Autonomous Aerial and Ground Vehicle Research Platform</i> )
	17:30 - 18:00	Presentation	A talk by Technology Innovation Hub, IIT Mandi
	18:00 - 18:30	Valedictory Session	