

# 4<sup>th</sup> International and 19<sup>th</sup> National Conference on Machines and Mechanisms (5-7<sup>th</sup> December, 2019)

Indian Institute of Technology Mandi, Mandi



5<sup>th</sup> December, 2019

## Inaugural

09.00 am - 10.00 am	Auditorium	Chief Guest	Dr (Ms) Tessy Thomas, Distinguished Scientist & Director General - Aeronautical Systems, DRDO
		President	Prof. Timothy A. Gonsalves, Director, IIT Mandi
		Guest of Honor	Shri Jayant Patil, Whole Time Director (Defence and L&T-NxT), Member of the Board, Larsen & Toubro Limited
09.00am - 04.00pm	Auditorium Gallery	ISRO Exhibition	
10.00 am - 10.30 am	High Tea		
<b>Key Note Address</b>			
10.30 am - 11.10 am	Auditorium	Prof. Subir Kumar Saha, Professor, IIT Delhi	Robotics to Rural - Innovative Teaching and Research Approaches
11.10 am - 11.50 am		Prof. Chitta Amarnath, Emeritus Professor, IIT Bombay	Thought Experiments - Prelude to Design
11.50 am - 12.30 pm		Prof. Sambit Bhattacharya, Professor, Fayetteville State University, USA	Machine Learning Applications in Manufacturing
12.30 pm - 01.30 pm	Lunch		
<b>Plenary Session</b>			
01.30 pm - 03.30 pm	Auditorium	Chief Guest	Shri Sudheer Kumar N, Associate Director, CBPO, ISRO HQ
		Guest of Honor	Commodore Mukesh Bhargava (Retd), Vice President, Member of the Board, L&T Defence

		Talk by ISRO Representatives	<ul style="list-style-type: none"> <li>a. Outreach programmes and opportunities in space programme by CPBO</li> <li>b. Critical technologies in current and future launch vehicle development</li> <li>c. Challenges in space applications for societal benefits</li> <li>d. Satellite building technologies road map</li> </ul>
03.30 pm - 04.00 pm	Tea		
<b>Technical Session</b>			
04.00 pm - 05.00 pm	Hall A	Session 1	Kinematics and Dynamics of Machines
	Hall B	Session 2	Mechanisms & Machines Rural, Agricultural & Industrial Applications
	Auditorium	Session 3	Robotics and Automation
	Hall C	Session 4	Special Applications Mechanisms Space & Deep Sea Applications
05.00 pm - 06.00 pm	Auditorium Gallery	Cultural Program	
04.00 pm - 06.00 pm	Conference Room C.V. Raman Guest House	GBM : Association for machines and mechanisms (AMM)	
<b>6<sup>th</sup> December, 2019</b>			
09.00am - 04.00pm	Auditorium Gallery	ISRO Exhibition	
<b>Key Note Address</b>			
09.00 am - 09.40 am	Auditorium	Prof. Guirong Liu, Director, University of Cincinnati, USA	FEM - AI and AI - AI: Trumpet - Nets for Real - Time Computations for Both Forward and Inverse Mechanics Problems
09.40 am - 10.20 am		Dr. Lalit Singh, Scientist, NPCIL, Department of Atomic Energy, Govt of India	Reliability Analysis of Safety Critical Systems
10.20 am - 11.00 am		Prof. G. K. Ananthasuresh, IISc Bangalore	Kissa Kursi ka: Development of an assistive chair for the elderly and arthritics
11.00 am - 11.30 am	Tea		

**Technical Session**

11.30 am - 12.30 pm	Hall A	Session 5	Kinematics and Dynamics of Machines
	Hall B	Session 6	Mechanisms & Machines Rural, Agricultural & Industrial Applications
	Auditorium	Session 7	Robotics and Control
	Hall C	Session 8	Special Applications Mechanisms Space & Deep Sea Applications
12.30 pm - 01.30 pm	Lunch		
<b>Technical Session</b>			
01.30 pm - 02.30 pm	Hall A	Session 9	Kinematics and Dynamics of Machines
	Hall B	Session 10	Mechanisms & Machines Rural, Agricultural & Industrial Applications
	Auditorium	Session 11	Robotics and Control
	Hall C	Session 12	CAD & Mechanical Design of Machine Elements
02.30 pm - 03.30 pm	Hall A	Session 13	Vibration & Control of Machines, Rotor Dynamics
	Hall B	Session 14	Biomedical Engineering
	Auditorium	Session 15	Man-Machine Systems and Mechatronics
	Hall C	Session 16	CAD & Mechanical Design of Machine Elements
03.30 pm - 04.00 pm	Tea		
<b>Technical Session</b>			
04.00 pm - 05.00 pm	Hall A	Session 17	Vibration & Control of Machines, Rotor Dynamics

	Hall B	Session 18	Biomedical Engineering
	Hall C	Session 19	Composite & Advanced Material
04.00 pm - 06.00 pm	Hall D and E	Poster Presentation and Student Mechanism Design Competition	Miscellaneous
<b>7<sup>th</sup> December, 2019</b>			
09.00am - 04.00pm	Auditorium Gallery	ISRO Exhibition	
<b>Key Note Address</b>			
09.00 am - 09.40 am	Auditorium	Dr. S Guruprasad, Distinguished Scientist & Director General – Production Coordination & Services Interaction, DRDO	Defence Technologies developed by DRDO
09.40 am - 10.20 am		Prof. Tarun Kant , IIT Bombay	Smart Structure and Machines
10.20 am - 11.00 am		Prof. Alam Md. Mahbub, Professor, Shenzhen Graduate School of Harbin Institute of Technology, China	The Role of Added Mass and Added Damping on The Initiation of Flow - Induced Vibrations of Cylindrical Structures
11.00 am - 11.30 am	Tea		
<b>Technical Session</b>			
11.30 am - 12.30 pm	Hall A	Session 20	Vibration & Control of Machines, Rotor Dynamics
	Hall B	Session 21	Composite & Advanced Material
	Hall C	Session 22	CAD & Mechanical Design
12.30 pm - 01.30 pm	Lunch		
<b>Technical Session</b>			
01.30 pm - 02.30 pm	Hall A	Session 23	Condition Monitoring & Fault Diagnosis

	Hall B	Session 24	Composite & Advanced Material
	Auditorium	Session 25	Robotics and Control
	Hall C	Session 26	Energy & Environment
02.30 pm - 03.30 pm	Hall A	Session 27	Biomedical Engineering
	Hall B	Session 28	Manufacturing
	Hall C	Session 29	Miscellaneous
03.30 pm - 04.00 pm	High Tea		
<b>Valedictory</b>			
04.00 pm - 05.00 pm	Auditorium	Chief Guest	Shri Sanjay Gulati, Executive Director, Bharat Heavy Electricals Limited, Haridwar
		President	Prof. Timothy A. Gonsalves, Director, IIT Mandi
		Guest of Honor	Dr. S Guruprasad, Distinguished Scientist & Director General – Production Coordination & Services Interaction, DRDO
<b>8<sup>th</sup> December, 2019</b>			
09.00am - 04.00pm	Parashar Lake Visit		