

Venue	Grand Ballroom - 17th Oct					
Track	Track1					
Title	Model Based Systems Engineering (MBSE)					
Chair	Dr Nikhil Joshi, John Deere					
Slot	Timing	ID	Title	Authors	Organization	Category
A1	2:00-2:25 PM	153	Overcoming Challenges in large scale MBSE operational deployment	Samuel Rochet	Obeo	Non-refereed
A2	2:25-2:50 PM	152	Systems engineering and its applicability in A&D and Automotive	Santharam Suneel	IBM	Non-refereed
A3	2:50-3:15 PM	149	SysML v2 - Next-generation, scalable, and enterprise-ready open standard for model-based systems engineering	Manas Bajaj	Intercax	Non-refereed
A4	3:15-3:40 PM	76	A System and Method for improving the Model Based System Engineering Environment capability	Prasanna Rn and Shailesh Patil	UTC	Refereed Papers

Venue	Grand Ballroom - 17th Oct					
Track	Track4					
Title	System Design & Optimization					
Chair	Reveendra Menon, Cyient					
Slot	Timing	ID	Title	Authors	Organization	Category
A5	4:00-4:25 PM	2	Percolation-Based Metrics to Quantify Resilience and Performance of Communication Systems	Caesar Benipayo	CAI Internationa	Refereed Papers
A6	4:25-4:50 PM	111	Developing Robust 3D Printed Parts for Automotive Application using Design for Additive Manufacturing and Optimization Techniques	Saravanakumar Shanmugam, Abhijith Naik, Sujan T and Sharanbasappa Desai	General Motors	Refereed Papers
A7	4:50-5:15 PM	116	Characterisation and optimisation of MEMS based pressure sensors for deep space missions	R Narayan, Aisha Sidhick, GI Shekar and Mvn Prasad	ISRO	Refereed Papers
A8	5:15-5:40 PM	120	Technical Measures Perspective to Handling Qualities Selection Criteria in Flight Control Design of High-Performance Fighter Aircraft	Kishan Singh Chowhan, Prof.Hemendra Arya and Dr. Girish S. Deodhare	ADA/ IIT Mumbai	Refereed Papers

Venue	Grand Ballroom - 18th Oct					
Track	Track7					
Title	System Thinking					
Chair	Dr Meenakshi D'Souza, IIT Bangalore					
Slot	Timing	ID	Title	Authors	Organization	Category
A9	8:30 - 8:55	113	Estimation of Differential Code Bias of IRNSS Satellite using Global Ionosphere Map	Yogesh Lingwal, Rajesh Kumar, F.B. Singh and B.N. Ramkrishna	ISRO	Refereed Papers
A10	8:55-9:20	69	Approaching the Indian Bullet train Project through a System thinking approach	Jagdeeswar Rao, Paul Alukal, Kirti Nayal, Seema Das, Dinesh Rajput, Mukundan R	NITIE, Mumbai	Refereed Papers
A11	9:20-9:45	126	Systems Approach for Integration of Medicine and Therapy to Alleviate Pain of Human Musculoskeletal System	Yoshiaki Ohkami and Munehiro Kayo	Keio University	Refereed Papers
A12	9:45-10:10	132	System engineering aspects of One-Way CDMA based Range and Integrity Monitoring Stations (RIMS) for NavIC system	Dileep Dharmappa, Sortur Anand Nelappa, Fateyh Bahaddur Singh and B N Ramakrishna	ISTRAC, ISRO	Refereed Papers

Venue	Grand Ballroom - 18th Oct					
Track	Track10					
Title	Systems Engineering Culture					
Chair	René Oosthuizen, INCOSE					
Slot	Timing	ID	Title	Authors	Organization	Category
A13	10:30-10:55	146	Overcoming a Systems Engineering culture	Manpreet Puri	AWE	Non-refereed
A14	10:55-11:20	151	Digital and Social systems: Understanding the hidden pattern	Batdorj Jargalsaikhan, Jargalsaikhan Dugar and Bayartsengel Batsaikhan	TUSSolution LLC	Non-refereed
A15	11:20-11:45	o	Panel: The Role of Diversity, Equity, and Inclusion in the Future of Systems Engineering Leadership Panelists: Ms Seetha Rani, HR Director - Honeywell Aerospace; Prof. Meenakshi D'Souza, IIIT-Bangalore; Ms	Panel Moderator: Alan Harding, BAE Systems, UK	INCOSE EWLSE	Panel
A16	11:45-12:10	o	Rema Ravindran, Director - Electrical Systems, Collins Aerospace			Panel

Venue	Krishna - 17th Oct					
Track	Track2					
Title	System Lifecycle & Processes					
Chair	Serge Landry, INCOSE					
Slot	Timing	ID	Title	Authors	Organization	Category
B1	2:00-2:25 PM	48	The INCOSE-PPI Systems Engineering Tools Database – What's Coming	René King	PPI	Refereed Papers
B2	2:25-2:50 PM	1	A modelling approach for integration of systems engineering and program management	Mahmoud Efatmaneshnik and Bill Parkins	UNSW	Non-refereed
B3	2:50-3:15 PM	36	Systems Engineering with Agile Methodologies in Large Agriculture Machines Software Development	Mandar Kale and Dhanashree Shingnapurkar	John Deere	Non-refereed
B4	3:15-3:40 PM	156	System Engineering Challenges & Approach for Locomotive Design	Gopalakrishna Madabhusi	Wabtec Corporation	Non-refereed

Venue	Krishna - 17th Oct					
Track	Tracks					
Title	System-of-Systems (SoS)					
Chair	Dr. Vinod Kumar, ISRO					
Slot	Timing	ID	Title	Authors	Organization	Category
B5	4:00-4:25 PM	148	Engineering Robust Aerial Swarm Systems	Aniket Gupta, Anurag Singh, Joyraj Bhowmick, Parth Mahajan and Saurav Ahlawat	Delhi University	Non-refereed
B6	4:25-4:50 PM	86	Internet of Things – Effective Stakeholder engagement with Architecture modelling approach	Ninad Dhanorkar	Shell	Non-refereed
B7	4:50-5:15 PM	140	Smart City as System of Systems for Vertical Farming and Autonomous Driving	Kunal Kulkarni	John Deere	Refereed Papers
B8	5:15-5:40 PM	88	System of Systems (SoS) modelling of the problem of UAS integration into controlled airspace	Prasanna Ramamurthy	Collins Aerospace	Refereed Papers

Venue	Krishna - 18th Oct					
Track	Track8					
Title	System Data - Learning & Analytics					
Chair	Dr Hariram Satheesh, ABB					
Slot	Timing	ID	Title	Authors	Organization	Category
B9	8:30 - 8:55	102	Aircraft landing performance assessment through post-flight data analytics	Prasanna Ramamurthy and Ajay Sundaramurthy	Collins Aerospace	Refereed Papers
B10	8:55-9:20	136	Timescale Ensemble Performance Enhancement through use of Artificial Neural Network	Shikha Maharana, Aakanksha Avnish Bhardwajan, T Subramanya Ganesh and Ramakrishna B N	ISTRAC, ISRO	Refereed Papers
B11	9:20-9:45	124	Industry 4.0 – Accurate and Reliable Data	Ajit Mutalik and Mahesh Mutalik	TechMetro Solutions	Non-refereed
B12	9:45-10:10	150	Analytics in Aerospace Industries	Seema Chopra	Boeing	Non-refereed

Venue	Krishna - 18th Oct					
Track	Track11					
Title	System Architecture Design					
Chair	R Narayan, LPSC - ISRO					
Slot	Timing	ID	Title	Authors	Organization	Category
B13	10:30-10:55	8	Approach to Designing Systems for Delivering Value	Anand Kumar, Doji Lokku, Edwin Anand, Kesav Vithal Nori and Swaminathan Natarajan	Tata Research Dev Center	Refereed Papers
B14	10:55-11:20	42	Multi-objective modeling and analysis of an electric vehicle for range, performance, drivability, handling and ride comfort	Elavarasan Dharumaseelan, Anand Pitchaikani, Elanchezhian Tamilselvam and Peter Sundstrom	Modelon	Refereed Papers
B15	11:20-11:45	50	A Method of Art Thinking for Adapting to Systems Engineering of Utilizing Architectural Framework for Self-Organizing	Seiji Shima, Nobuyuki Kobayashi and Seiko Shirasaka	Keio University	Refereed Papers
B16	11:45-12:10	109	System Design approach for Service Oriented Communication using Autosar Methodology	Nayana Chaudhari and Sinu J Isac	General Motors	Refereed Papers

Venue	Pennar - 17th Oct					
Track	Track3					
Title	System Complexity					
Chair	Dr T V Gopal, Anna University					
Slot	Timing	ID	Title	Authors	Organization	Category
C1	2:00-2:25 PM	16	Implementation And Realisation Of Micro Digital Sun Sensor (MDSS) Processing In FPGA	Tarun Kohli and Amit Maji	LEOS, ISRO	Refereed Papers
C2	2:25-2:50 PM	17	Systems Complexity in Conceiving an Optical Payload for Remote Sensing Spacecraft – A case study	Avinash M, Ravi Chandra Babu G and Dr. Nagesh S.K	U.R.Rao Satellite Centre, ISRO	Refereed Papers
C3	2:50-3:15 PM	55	Challenges in the Automation of Eddy Current evaluation system for Spacecraft Propellant Tanks	Poornima S, Ramprasad B, Ingersol S, Narayan R and Narayanan G	LPSC, ISRO	Refereed Papers
C4	3:15-3:40 PM	89	Ameliorating the methodology to chill rocket fuels for Launch vehicle	Ankit Kumar Lamba, R. Krishnamoorthy Naidu and Vishwas Chandramouly	ISRO	Refereed Papers

Venue	Pennar - 17th Oct					
Track	Track6					
Title	System Modeling					
Chair	Raghavendra Bhat, ANSYS					
Slot	Timing	ID	Title	Authors	Organization	Category
C5	4:00-4:25	11	Modular Semantically Integrated Systems Modeling	Swaminathan Natarajan and Subhrojyoti Roy Chaudhuri	Tata Consultancy Services Research	Refereed Papers
C6	4:25-4:50	57	A System Dynamic Model to Assess Cost and Profitability in Reverse logistics in Apparel Industry	Shristi Singh, Padmanav Acharya and Karuna Jain	NITIE, Mumbai	Refereed Papers
C7	4:50-5:15	75	Modeling operations of a construction worksite system	Yatin Jayawant, Nikhil Joshi and Dipali Tole	John Deere	Refereed Papers
C8	5:15-5:40	13	System Level Modelling of Batteries in Satellite Power System in Multiple Source and Multiple Load Configuration	Ratnala Chaitanya Prasad, Ananda S, Jyostnarani Mahanta, Pramod M, Srinivasan Ms and Sankaran M	ISRO	Refereed Papers

Venue	Pennar - 18th Oct					
Track	Track9					
Title	System Safety & Reliability					
Chair	Dr. Mahendra Nayak, PES University					
Slot	Timing	ID	Title	Authors	Organization	Category
C9	8:30 - 8:55	6	Teaching STPA and OPM to Engineering Students – Industry Academia Experiences	Yogananda Jeppu and Shreesha Chokkadi	Honeywell	Refereed Papers
C10	8:55-9:20	44	Systems Engineering Challenges of making spinning satellite vs rotating payload to improve systems reliability	Brindaban Mahto, Meena G., Abhilash Gupta and Amareshwar Khened	U.R.Rao Satellite Centre, ISRO	Refereed Papers
C11	9:20-9:45	43	Safety Assurance Case Description Method for Systems Incorporating Off-Operational Machine Learning and Safety Device	Hiroataka Fujino, Nobuyuki Kobayashi and Seiko Shirasaka	Keio University	Refereed Papers
C12	9:45-10:10	155	System Engineering for Automotive Active Safety Mechatronics Products	Jaidev Venkataraman and Niranjana Suryaprabha	Continental	Non-refereed

Venue	Pennar - 18th Oct					
Track	Track12					
Title	System Design & Modeling					
Chair	Dr Vijay Mishra, IISc					
Slot	Timing	ID	Title	Authors	Organization	Category
C13	10:30-10:55	41	Application of Object-Process Methodology in Project Management- A Case Study of Mumbai Metro Line 3	Harshal More and Prof. Vivekanand Khanapuri	NITIE, Mumbai	Refereed Papers
C14	10:55-11:20	131	Spinning a Smart, Digital Thread for MBSE of Cyber-Physical Systems	Manas Bajaj, Amit Kumar, Manoj Waikar and Anya Sharma	Intercax	Non-refereed
C15	11:20-11:45	137	Designing an on-board Macro Executor for Payload (MEP) for optimized payload operations of Earth Observation satellites	Chaitra Rao and Nagesh S K	ISTRAC, ISRO	Refereed Papers
C16	11:45-12:10	104	Case study - System Engineering of a cargo Door Control Unit	Reveendra Menon	Cyient	Non-refereed