



## Program schedule for INFUSE 2025

Day 1 – 15 <sup>th</sup> September 2025	
Time	Program
8:30 am – 9:20 am	<b>Registration</b>
9:20 am – 9:25 am	<b>Welcome note</b>
9:25 am – 9:30 am	<b>Invocation song and lighting of lamp</b>
9:30 am – 9:35 am	Welcome Note by Dr. Suhas Ballal Convener – INFUSE 2025
9:35 am – 9:45 am	<b>Welcome Speech</b> by Dr. Asha Rajiv, Director – School of Sciences, JAIN (Deemed-to-be University)
9:45 am – 9:55 am	<b>Presidential Address</b> by Mr. Ravindra Bhandari Vice-President, JAIN (Deemed-to-be University)
9:55 am – 10:10 am	<b>Inaugural Speech</b> by Dr. Jitendra Mishra Vice Chancellor (I/c), JAIN (Deemed-to-be University)
10:10 am – 10:50 am	<b>Key Note Address</b> Dr. Osamu Shimmi Professor in Developmental Biology Institute of Molecular and Cell Biology University of Tartu, Estonia
10.50 am – 11:00 am	<b>Vote of thanks</b> Dr. Suhas Ballal, Convener, INFUSE
11:10 am - 11:15	<b>Tea Break</b>
11:15 am – 12:15 pm	Parallel sessions Plenary talks
12:15 pm – 01:00 pm	Parallel sessions – Oral presentation
1:00 pm - 2:00 pm	<b>Lunch</b>
2:00 pm - 4:00 pm	Parallel Sessions– Oral presentation
3:00 pm -5:00 pm	Poster session (with Coffee/Tea break )



Day 2 – 18 <sup>th</sup> September, 2025	
Time	Program
9:30 am – 10:50 am	Parallel Plenary Talk
10:50 am – 11:00 am	<b>Tea Break</b>
11:00 am – 1:00 pm	Oral Presentation / Poster Presentation
1:00 pm – 2:00 pm	<b>Lunch Break</b>
2:00 pm – 3:00 pm	<b>Panel Discussion</b>
3:30 pm – 4:00 pm	<b>Valedictory</b> <ul style="list-style-type: none"><li>• Award Ceremony</li><li>• Vote of Thanks</li><li>• Feedback</li></ul>
4:00 pm onwards	High Tea



**18/09/2025**

**PANEL DISCUSSION**

**2:00 PM**

S.No.	PANEL DISCUSSION	PANELISTS	DESIGNATION
1		Dr. R. Srikanth	Associate Professor Dept. of Theoretical Sciences Poornaprajna Institute of Scientific Research
2		Mr. Sai Prasad S N	Director - Partnerships at Newgen Software, Bengaluru

**PARALLEL PLENARY TALKS**

**17/09/2025**

**11:15 AM – 12:00 PM**

Name	Designation
Prof. Bibha Choudhary	Professor, Disease Genomics Institute of Bioinformatics and Applied Biotechnology
Dr. Chethan	Director, Axonet Research Center for National Forensic Science University Recognised by the Dept of Scientific & Industrial Research
Mr. Arunakumar T S	MD & CEO, SEESCON.

**18/09/2025**

**9:30 AM – 10:50 AM**

Name	Designation
Dr. Anoop Vincent	HoD & Professor Sri Narayana Institute of Medical Sciences, Ernakulam
Dr. Shashi Thutupalli	NCBS & International Centre for Theoretical Sciences



## Parallel Oral Sessions' Schedule

Theme	Biological Sciences				
Day 1	17-09-2025	Session	Morning	Time	12:15 PM - 1:00 PM
Room No					
Time	Abstract ID	Title			
12:15 PM- 12:25 PM	05	Nature's Answer to Resistance: Antibacterial and Antioxidant Efficacy of Averrhoa bilimbi Leaves			
12:25 PM - 12:35 PM	12	Microgreen-Mediated Zinc Oxide Nanoparticles: An Eco-Friendly Approach Against Food-Borne Pathogens			
12:35 PM -12:45 PM	35	Insilico Molecular interaction study of Non-terpenoid and non-steroid constituents of neem (A. indica) against Breast cancer inducing protein (AXL receptor tyrosine kinase)			
12:45 PM -12:55 PM	38	Decoding Host-Microbe Crosstalk: Novel Trends in Bombyx mori Gut Microbiota and Insect Immunity			

Theme	Biological Sciences				
Day 1	17-09-2025	Session	Afternoon	Time	2:00 PM - 4:00 PM
Room No					
Time	Abstract ID	Title			
2:00 PM - 2:10 PM	56	Assessment of probiotic properties in Lactic Acid Bacteria (LAB) isolated from different food sources			
2:10 PM - 2:20 PM	59	Influence of calf sex on milk nutrition and fatty acid profile of Gir and Sahiwal cattle breeds of Karnataka, India			
2:20 PM - 2:30 PM	65	Isolation and Characterization of Probiotic Species from Fermented Ragi Water			
2:30 PM - 2:40 PM	71	A Comparative Cytotoxic Study of Berberis Aristata Crude Extract on HeLa and K562 Cell Lines: An Integrated In-Vitro and In-Silico Approach			
2:40 PM - 2:50 PM	73	Investigating the effects of wood smoke exposure on developmental health, neurological development, and lifespan in Drosophila melanogaster			
2:50 PM – 3:00 PM	78	Microbial Bioleaching of spent Lithium-Ion batteries for valuable Metal Recovery			
3:00 PM – 3:10 PM	86	Cryopreserved Human Sperm Showed Enhanced Motility via Temporary Energy Restriction			



Theme	Biological Sciences				
Day 2	18-09-2025	Session	Morning	Time	11:00 AM - 1:00 PM
Room No					
Time	Abstract ID	Title			
11:00 AM - 11:10 AM	97	Effect Of Varying Concentrations Of Retinoic Acid On In Vitro Differentiation Of Sheep Spermatogonial Stem Cells			
11:10 AM - 11:20 AM	150	Hypotaurine protects viability and mitochondrial membrane potential during cryopreservation of Sheep spermatogonial stem cells			
11:20 AM - 11:30 AM	152	In-vitro transfection efficiency of Sheep Spermatogonial Stem cells using Lipofectamine Reagents			
11:30 AM - 11:40 AM	178	Immunomodulatory effect of NF- $\kappa$ B and Nrf2 by R-Phytoerythrin: A Natural Anti-Inflammatory and Cytoprotective Agent			
11:40 AM – 11:50 PM	183	Use of Placket Burman design in optimizing the process parameters for decolorization of VAT blue 4 by the fungus <i>Lividopora vineta</i> isolated from textile industry effluents.			
11:50 PM – 12:00 PM	187	Effect of CuO, ZnO, and TiO <sub>2</sub> Nanoparticles on Withanolide Production in <i>Withania somnifera</i>			
12:00 PM – 12:10 PM	205	Epigallocatechin Gallate: Anticancer potential, Therapeutic challenges and Translational Promises			

Theme	Chemical Science				
Day 1	17-09-2025	Session	Morning	Time	12:15 PM - 1:00 PM
Room No					
Time	Abstract ID	Title			
12:15 PM- 12:25 PM	04	A DSE-ESIPT-Active Organic Luminogen for Ratiometric Detection of Cu (II) Ions with “Off-On” Enantioselective Recognition of Amino Alcohols and Selective Hydrazine Sensing			
12:25 PM - 12:35 PM	08	Assessment of Salutory properties of Schiff Base derived from Alloxan synthesised through Green Technology			
12:35 PM -12:45 PM	09	Bacteriostatic and synergistic antibacterial effects of Piper betle and Petroselinum crispum extracts in combination with conventional antibiotics			
12:45 PM -12:55 PM	34	Optical and Photocatalytic applications of synthesized Strontium doped Zinc oxide nanoparticles through chemical co-precipitation method			
12:55 PM -1:05 PM	36	Optical and Photocatalytic applications of green synthesized nickel doped manganese oxide nanoparticles prepared via microwave assisted Combustion method.			

Theme	Chemical Science				
Day 1	18-09-2025	Session	Afternoon	Time	2:00 PM - 4:00 PM
Room No					
Time	Abstract ID	Title			
2:00 PM - 2:10 PM	42	Simultaneous detection of Sunset Yellow and Tartrazine using Al <sub>2</sub> O <sub>3</sub> modified nanoparticles via Enhanced Carbon Paste Electrodes			
2:10 PM - 2:20 PM	52	Target-Specific Pesticide Against Thrips and Mites			
2:20 PM - 2:30 PM	61	High-performance PVA/PVP-based polymer film with a dual-crosslinked network of nanofillers for effective radiation shielding applications			
2:30 PM - 2:40 PM	66	Brown Seaweed as a potential contender for Green Energy and Sustainable Chemical Processes.			
2:40 PM - 2:50 PM	102	Optimization of Ultrasound-Assisted Extraction of Okra Polysaccharides Using Response Surface Methodology			
2:50 PM – 3:00 PM	139	Sustainable Soil Solutions: Harnessing Bio-Silica from Millet Husk			
3:00 PM – 3:10 PM	168	Biodegradable Water Bottles for a Plastic-Free Tomorrow			



Theme	Health Science				
Day 1	17-09-2025	Session	Morning	Time	12:15 PM - 1:00 PM
Room No					
Time	Abstract ID	Title			
12:15 PM - 12:25 PM	14	Bacteriostatic and synergistic antibacterial effects of Piper betle and Petroselinum crispum extracts in combination with conventional antibiotics			
12:25 PM - 12:35 PM	21	Zebra fish as a model to study Acute pancreatitis- A novel method induced through Alcohol/L-arginine			
12:35 AM - 12:45 PM	27	Bridging functional foods and nutraceuticals: Advances in bioactive compounds for health promotion and disease prevention			
12:45 PM - 12:55 PM	28	Phytochemical constituents and therapeutic prospects of Biophytum sensitivum			
12:55 PM – 1:05 PM	45	pH-triggered pectin–silver nanogel as precision vehicle to 5-flourouracil for enhanced oral bioavailability and effective drug release in cancer therapy			

Theme	Health Science				
Day 1	17-09-2025	Session	Afternoon	Time	2:00 PM - 4:00 PM
Room No					
Time	Abstract ID	Title			
2:00 PM - 2:10 PM	49	Purification Of Toxins From Bacterial Isolates Of Fruit And Vegetable Salads			
2:10 PM - 2:20 PM	60	Process Optimization for High-Yield Lactic Acid from Agricultural Residues for Biomedical PLA Applications			
2:20 PM - 2:30 PM	63	Multigenerational Toxicity Assessment of Potassium Sorbate and Sodium Benzoate in Drosophila melanogaster			
2:30 PM - 2:40 PM	68	A study of risk factors and associated oral microbiome using NGS contributing to early childhood caries among the urban population of Bengaluru district			
2:40 PM - 2:50 PM	74	A Teratological Study Of Faulty Neural Tube Closure And Neuro-Protection In Gallus gallus domestics			
2:50 PM – 3:00 PM	91	Bridging Traditional Healing and Nutritional Neuroscience for Sustainable Health			
3:00 PM – 3:10 PM	96	Cigarette De-addiction Device Using Water Generated Steam			
3:10 PM – 3:20 PM	115	AI and Big Data for Ageing Populations: Reimagining Digital Health Ecosystems in the Global South			



Theme	Health Sciences				
Day 2	18-09-2025	Session	Morning	Time	11:00 AM - 1:00 PM
Room No					
Time	Abstract ID	Title			
11:00 AM - 11:10 AM	116	Harnessing RNA therapeutics: novel approaches and emerging strategies for cardiovascular disease management			
11:10 AM - 11:20 AM	132	The Biopsychology of Enzymatic Degradation			
11:20 AM - 11:30 AM	151	Skin Anti-Aging Efficacy of Enzyme-Treated Supercritical Caviar Extract			
11:30 AM - 11:40 AM	153	Development Of An Eco-Friendly Novel Method To Extract Soluble Dietary Fibers From Medicinal Seeds And Their Application In Popular Fmcg Food Products			
11:40 AM – 12:00 PM	160	Herbal Formulation For Oral Hygiene			
12:00 PM – 12:10 PM	170	Nutrigenomics and Vitamin Metabolism: Implications for Deficiency and Health			
12:10 PM – 12:20 PM	176	Smart Nanoplatfroms: Chitosan Nanoparticles for Next-Generation Antimicrobial Strategies			
12:20 PM – 12:30 PM	179	Non-essential Heavy Metals and Their Influence on Cardiovascular Disease and Therapeutic Efficacy			





Theme	Mathematics and Data Science				
Day 1	17-09-2025	Session	Morning	Time	12:15 PM - 1:00 PM
Room No	LH2				
Time	Abstract ID	Title			
12:15 PM - 12:25 PM	7	Characterizing Temporal Patterns of Urban Air Pollution and AQI Variability in Delhi			
12:25 PM - 12:35 PM	15	Spectral geometric aspects and applications to resonances and related themes			
12:35 AM - 12:45 PM	16	Precision Agriculture Using Deep Learning-Based Tomato Leaf Disease Diagnosis			
12:45 PM - 12:55 PM	41	Enhancing Recruitment through NLP-Driven Resume Screening			
12:55 PM – 1:05 PM	57	Enabling Trustworthy Big Data Analytics through Federated Learning			

Theme	Mathematical and Data Science				
Day 1	17-09-2025	Session	Afternoon	Time	2:00 PM - 4:00 PM
Room No	LH2				
Time	Abstract ID	Title			
2:00 PM - 2:10 PM	95	Disorder Severity Analysis Of Coconut Leaves Through Hybrid Deep Learning Approach			
2:10 PM - 2:20 PM	100	Precision Agriculture Using Deep Learning-Based Tomato Leaf Disease Diagnosis			
2:20 PM - 2:30 PM	103	Deep Belief Network For Detection Of Marine Pollutants And Sea Surface Features			
2:30 PM - 2:40 PM	104	Uncovering The Latent Dynamics Of Social Media Addiction Using A Hybrid Hmm-Rbm Framework			
2:40 PM - 2:50 PM	105	Predictive Analytics and Data-Driven Decision Making for Early Detection of Diabetic Retinopathy			
2:50 PM – 3:00 PM	106	Digital Guilt: Studying The Psychological Effect Of Online Transaction Histories On Student Behaviour			
3:00 PM – 3:10 PM	108	Data-Driven Player Performance Prediction For Odi Cricket Team Selection Using Supervised Machine Learning			
3:10 PM – 3:20 PM	110	Electro-Osmotic Peristaltic Propulsion of a PTT Fluid with Ciliary Motion in Rough-Walled Channels with Thermal Radiation: Micro-fluidic and Biomedical Applications			
3:20 PM – 3:30 PM	133	Analysis and Forecasting of Stock price based on a univariate time series approach			
3:30 PM – 3:40 PM	186	Review Of Traffic Modelling Techniques			
3:40 PM – 3:50 PM	206	The Role of Online Reviews in Shaping Hotel Booking Behavior			



Theme	Forensic Science				
Day 1	17-09-2025	Session	Morning	Time	12:15 PM - 1:00 PM
Room No					
Time	Abstract ID	Title			
12:15 PM - 12:25 PM	89	RegTrace: USB-Based Windows Registry Forensic Tool			
12:25 PM - 12:35 PM	118	Comparative Analysis of Toe Prints Between Male and Female in Gujarat Population			
12:35 AM - 12:45 PM	123	Latent Fingerprint Development Using Plant-Based Powders Derived from Groundnut Shell			
12:45 PM - 12:55 PM	124	An Innovative Biogenic Fingerprint Powder Derived From Seashells For Latent Print Identification			

Theme	Forensic Science				
Day 1	17-09-2025	Session	Afternoon	Time	2:00 PM - 4:00 PM
Room No					
Time	Abstract ID	Title			
2:00 PM - 2:10 PM	126	Analysis of Toe Prints Between Male and Female in Karnataka Population Comparative			
2:10 PM - 2:20 PM	129	Traceroute Analysis in Mobile Forensics Using AT&T Video Optimizer			
2:20 PM - 2:30 PM	136	Enhancing DES Architecture by Replacing XOR with NAND in the Feistel Network			
2:30 PM - 2:40 PM	140	Uncovering Digital Trails in IoT networks: AI- enhanced signal field-based Network Forensics			
2:40 PM - 2:50 PM	142	Supervised learning approach for estimating human height from footprint measurements			
2:50 PM – 3:00 PM	144	Advanced Network Traffic Monitoring Tool			
3:00 PM – 3:10 PM	145	Decentralized Anti-Counterfeiting System: Ethereum Smart Contracts and QR Code Integration for Product Authentication			
3:10 PM – 3:20 PM	156	Latent Print Enhancement Using Plant-Based Powders Derived From Date Seed			



Theme	Forensic Sciences				
Day 2	18-09-2025	Session	Morning	Time	11:00 AM - 1:00 PM
Room No					
Time	Abstract ID	Title			
11:00 AM - 11:10 AM	182	Correlation between breadth of the footprint and the human stature, in Tamil Nadu population			
11:10 AM - 11:20 AM	191	Comb-Shaped Nanotube Architectures Synthesized under Oxygen-Free Conditions for Forensic Biomarker Detection			
11:20 AM - 11:30 AM	198	Comparative study of Automobile Paint using FTIR and chemometrics _ A Review			
11:30 AM - 11:40 AM	203	Advancement in Crime Scene Investigation with reference to Luminol test of Blood stains: A review			



Theme	Physical Science				
Day 1	17-09-2025	Session	Morning	Time	12:15 PM - 1:00 PM
Room No					
Time	Abstract ID	Title			
12:15 PM - 12:25 PM	44	Exploring black hole mergers through gravitational wave			
12:25 PM - 12:35 PM	47	Facile Reduction of Graphene Oxide Thin Films Using Ascorbic Acid for Improved Electrical Properties			
12:35 AM - 12:45 PM	48	Exploring LiZnBO <sub>3</sub> for Electrochemical Energy Storage: A Cost-Effective Borate-Based Electrode			
12:45 PM - 12:55 PM	51	Impact of atmospheric moisture on Indian monsoon rainfall variability			
12:55 PM – 1:05 PM	92	Analysing The Distinctive Properties of Stars and Exoplanets.			

Day 1	17-09-2025	Session	Afternoon	Time	2:00 PM - 4:00 PM
Room No					
Time	Abstract ID	Title			
2:00 PM - 2:10 PM	92	Analysing The Distinctive Properties of Stars and Exoplanets.			
2:10 PM - 2:20 PM	107	The Quantum topological hologram: A stabilizer code framework for black hole information preservation			
2:20 PM - 2:30 PM	109	The Influence Of Ni Doping On Structural and Optical Properties Of Lanthanum Oxide (La <sub>2</sub> O <sub>3</sub> ) Thin Films Synthesized Through Sol-gel Spin Coating Technique.			
2:30 PM - 2:40 PM	125	Influence of CuO Concentration on the Electrical Conductivity and Structural Properties of Lithium Borate Glasses			
2:40 PM - 2:50 PM	128	Enhanced Structural, Optical, and Photocatalytic Performance of Sm <sup>3+</sup> -Doped LaFeO <sub>3</sub> Nanoparticles Synthesized via Solution Combustion			
2:50 PM – 3:00 PM	169	Induced magnetic field variability between day and night in the Martian ionosphere: Insights from MAVEN/MAG			
3:00 PM – 3:10 PM	149	Structural and thermal studies of barium doped phosphate bioactive glasses			
3:10 PM – 3:20 PM	181	Radiation shielding studies of Phosphate based heavy metal oxide glasses for Radiation shielding applications			

**Physical Science**

<b>Day 2</b>	18-09-2025	<b>Session</b>	Morning	<b>Time</b>	11:00 AM - 1:00 PM
<b>Room No</b>					
<b>Time</b>	<b>Abstract ID</b>	<b>Title</b>			
11:00 AM - 11:10 AM	171	Design and Verification Methods of Digital System: An Overview			
11:10 AM - 11:20 AM	173	Design, Development and Implementation of Solar Power-Based Bluetooth Controller for an Industrial Automation System			
11:20 AM - 11:30 AM	177	Analysis and Detection of Multi-Lesion for Diabetic Retinopathy using CNN Based Approach			
11:30 AM - 11:40 AM	202	Structure of Stellar Halos Across Dark Matter Models in Milky Way-like Galaxies Using the EAGLE Simulation			
11:40 AM – 11:50 AM	23	Recent Advances In Green Hydrogen Production Technology With Socio Economic Analysis			
11:50 AM – 12:00 PM	175	Characterizing the Martian Ionospheric M2 layer using MAVEN / ROSE			
12:00 PM – 12:10 PM	146	Electrostatics in a Crowded World: Bridging Theory and Cellular Reality in Macromolecular Interactions			

Theme	Engineering and Technology				
Day 1	17-09-2025	Session	Morning	Time	12:15 PM - 1:00 PM
Room No					
Time	Abstract ID	Title			
12:15 PM - 12:25 PM	17	CRISPR/Cas9-Mediated Knockout Of Susceptibility Genes For Blast Resistance In Pusa Basmati Rice			
12:25 PM - 12:35 PM	19	Electrostatic Lake Foam Suppression Module			
12:35 AM - 12:45 PM	84	Performance Monitoring And Power Conditioning Of Rooftop Solar Pv System Using Auxiliary Resonant Converter			
12:45 PM - 12:55 PM	88	Towards Intelligent Mirrors: A Review Of Actuation Strategies In Adaptive			
12:55 PM - 1:05 PM	93	A Review On - Impact Of Nano Admixture To Improve The Durability And Strength Of Concrete			

Theme	Engineering and Technology				
Day 1	17-09-2025	Session	Afternoon	Time	2:00 PM - 4:00 PM
Room No					
Time	Abstract ID	Title			
2:00 PM - 2:10 PM	94	Next-Generation Solution For Water Disposal: Deep Soil Percolation			
2:10 PM - 2:20 PM	122	Artificial Intelligence In Construction 4.0 - A Systematic Review Of Current Applications And Future Prospects			
2:20 PM - 2:30 PM	159	Bridge Resilience To Earthquakes: Comprehensive Review Of Seismic Response, Fragility, And Isolator Effectiveness			
2:30 PM - 2:40 PM	167	Dewat System In Dsce College As Future Forecasting Persective By Iot Techniques			
2:40 PM - 2:50 PM	174	Integrated Data Center Architecture For Carbon-Aware Operations And Lifecycle Sustainability			
2:50 PM – 3:00 PM	192	Solar MPPT Using Fuzzy Logic And Adaptive Mutation			
3:00 PM – 3:10 PM	200	Integration Of Artificial Intelligence And 5G Technology For Transformative Healthcare			
3:10 PM – 3:20 PM	213	Carbon Footprints And Renewable Energy: A Comprehensive Review Of Pathways For Sustainable Power Systems			
3:20 PM – 3:30 PM	214	Smart Agriculture: Integrating Iot And Remote Sensing For Crop Management			
3:30 PM – 3:40 PM	215	Mix Design And Strength Of Coral Shell Powder Concrete			
3:40 PM – 3:50 PM	216	An Experimental Study On Self- Curing Concrete Using GGBS Slag And Poly Ethelene Glycol			
3:50 PM – 4:00 PM	217	Partial Replacement Of Fine Aggregate By Sea Sand In Gpcc			