PROGRAM SCHEDULE

International Conference on "Materials Science and Mathematics for Advanced Technology"- MSMAT-2026

Session 1: Chemistry

Date: 05-02-2026	Afternoon (2.45 pm- 4.30 pm)
ID	**Paper Title and Authors**
MAT 2625	Physicochemical Characterization and Comparative Evaluation of Biodiesel from Niger and Cotton Oils **Authors:** N.K. Millerjothi, S. Kavin Adhithan, R.L. Krupakaran, R. Satya Meher, P. Ravishankar, Z. Fathima Shahiba, B. Sri Poorani
MAT 2680	A density functional study of H_2 storage on lithium decorated novel nitrogen-doped **Authors:** Tapas Kumbhakar, Smruti Ranjan Parida, Subhasis Sarkar, Rajnendra Singh, Dhrubajyoti Devsharma, Jagannath Pradhan, Soumendra Das, Sridhar Sahu
MAT 2686	Effective reduction of p-nitroaniline using highly dispersed carboxymethyl cellulose stabilized gold nanoparticles **Authors:** CH. Lakshmi Prasanna, Santosh Kumar Bindhani, Venu Reddy, T.V.Nagalakshmi , V. Swaminatham
MAT 2688	Synthesis and Bioassay study of Tetrahydro-6H- [1,3,4] thiadiazolo [2,3-b] quinazolin-6-one Derivatives Promoted by CuI 2 as a catalyst **Authors:** B. Iswarya Lakshmi, Radha Krushna .P, N.Krishna Rao
MAT 2690	Transition metal catalyst promoted to Synthesis and In-Vitro Studies of thiadiazolo [3, 2-a] pyrimidine-6-carbonitrile analogues **Authors:** T.Mohini, Dr.Jitendra kumar sahoo, Dr. N.Krishnarao
MAT 2641	ISOLATION AND EXTRACTION OF POLYHYDROXYALKANOATES FROM MICROORGANISMS USING DEEP EUTECTIC SOLVENTS **Authors:** Navni Hegde, Archisha Nambiar, Bhargavi S, Dharshini Karthik, Sumathra Manokaran,A V Narayan, Shivandappa, Ajeeth Kumar Srivastava

MAT 2714	In-Silico Screening of Consumable Ligands for Flunitrazepam Molecular Recognition **Authors:** ADVAITH V RAMBHATLA, BHARGAVI S, DHARSHINI K, HARI SUADARSAN CHINTA, Sumathra Manokaran
MAT 2717	Ionic Gelation-Based Encapsulation of Nisin in Chitosan Nanoparticles **Authors:** Kaavyashree V, Srijeeta Ghosh,Tanya Prashanth

Session 2: Physics

Date: 06-02-2026	Morning (9.15 am- 1.00 pm)
ID	**Paper Title and Authors**
MAT 2620	Innovation in Low-Cost Air-Oxygen Ventilator with Integrated SpOâ,, Monitoring **Authors:** Shrinivasa D, Arun Kumar K N, Mohith C, Dhanush Vishwakarma S, Nandish M K, Prashanth M
MAT 2624	Impact of Heater Geometry on Thermal and Electro-Mechanical Behavior of MEMS Microhotplates **Authors:** Celine Sony, Hannah Maju, Krishnananda S, Abner Sebastian Lopez, Akul Prasanth, Lekshmi M S, Deepthi Jayan K, Priya S, and Aparna George
MAT 2643	"Sustainable Hydrogen Production from Sericulture Waste: Current Technologies, Challenges, and Future Prospects" **Authors:** Vinay M N, R VARA PRASAD KAVITI, D Prathap, Fazil Nalband, Narebdra N, M.M Noor,Chethan Mariyanna Adinarayana Reddy
MAT 2652	Gamma Irradiation and Thermal Cycling Effects on Transformation Behavior of Heat-Treated NiTi Shape Memory Alloys **Authors:** Murari M S, Rahina M K, Swaroop K, Gururmurthy S C, Yashodhara I
MAT 2659	"Experimental Study of the Effect of Load on the Emissions and Engine Performance of a Dual-Fuel Diesel Engine Powered by Sericulture Waste " **Authors:** Vinay M N, R VARA PRASAD KAVITI, D Prathap,Fazil Nalband, Narendra N, M.M Noor,Chethan Mariyanna Adinarayana Reddy
MAT 2661	Aluminium-Gallium Co-doped ZnO: rGO Nanocomposite Electrode for Supercapacitor Applications **Authors:** N. Rashmi, Felcy Jyothi Serrao, N. B. Rithin Kumar, M. B. Savitha
MAT 2670	Incorporation of Marine Sand as a Sustainable alternative in Alkali-Activated Concrete **Authors:** Urmil Dave, Sonal Thakkar, Abhishek Chanda, Shivanjali Rawat, Bhoomi Andharia.
MAT 2671	INFLUENCE OF LUBRICATION METHODS ON CYLINDRICAL GRINDING EFFICIENCY: DRY, FLOODED AND MQL CONDITIONS

	Authors: Sagar M Baligidad, N.E. Arun Kumar, Gavaskar T, Murugapoopathi.S, F. Antony Leo
MAT 2672	PROCESS OPTIMIZATION FOR ENERGY-EFFICIENT CENTERLESS GRINDING:CRITICAL ANALYSIS AND INDUSTRIAL IMPLEMENTATION **Authors:** Sagar M Baligidad, N.E. Arun Kumar, Gavaskar T, Murugapoopathi.S, F. Antony Leo
MAT 2674	Characterization of the microstructure and tribological properties of SS316L fabricated by the fused deposition modelling technique **Authors:** Sagar M Baligidad, Fazlur Rahaman, Chethan Kumar G
MAT 2678	SF-Au/CMC Bionanocomposite Films Electrical and UV-Shielding Properties **Authors:** S. Thripthi, S. Asha, and Y. Sangappa
MAT 2704	Casting-Oriented Synthesis of CMC/In2O3 Nanocomposites with Engineered Microstructure for Optically Enabled Antibacterial Applications **Authors:** Widad Dhahir Kadhim, Abdullah Abdulkareem Fayyadh, Mohammed L. Adnan, Mohanad H. Meteab, Musaab Khudhur Mohammed, Ahmed Hashim
MAT 2705	INVESTIGATION ON THE INFLUENCE OF 3D PRINTING PARAMETERS ON DENSITY OF INVAR-36 BY SELECTIVE LASER MELTING **Authors:** jeush Benjamin, Francis Xavier L, Ravi Kumar Varma
MAT 2707	Structural and Optical Properties of Al-doped NiO Nanoparticles Synthesized by Chemical Co-Precipitation Method **Authors:** S.Vasavi Devi, B. Ayesha, B. Sreenivasulu, M. Hari Prasad Reddy, S.Venkatramana Reddy
MAT 2708	Experimental Analysis on Condensation of Steam with Nitrogen gas on Steel, Aluminium and Copper Surfaces **Authors:** Nagaprasad K.S, Abhinav.T, Srinidhi S B, Sudha Deepti. K, Deepak K,Kamesh M R
MAT 2711	Performance Analysis of FinFET Based Digital Circuits **Authors:** Krishnapriya S, Binu Manohar
MAT 2709	A Low-Cost Real-Time Digital Power Converter Design Using LAUNCHXL-F28027 for Photovoltaic Applications **Authors:** Russul H. Mohammed, Rasha Akar Abbood, Najlaa Hassoon Salman, Mohannad Jabbar Mnati, Saad Mutashar, and Alex Van Den Bossche

MAT 2689	SEM-driven characterization of 3D-printed UHV hole **Authors:** Vineet Kumar, Peter KÃºÅ¡, JiÅ™Ã HajnyÅ¡, Michal Hejduk
MAT 2692	Investigation on Barrier Thickness Variation Effect on AlInN/GaN based MOSHEMT Performance **Authors:** ACHINTA BAIDYA, NILADRI PRATAP MAITY, ABHIJYOTI GHOSH, ZONUNMAWII, SANTANU NAYAK, ROMAN KANTI CHAKMA

International Conference on "Materials Science and Mathematics for Advanced Technology"- MSMAT-2026

Session 3: Mathematics

Date: 06-02-2026	Afternoon (2.00 pm – 4.30 pm)
ID	**Paper Title and Authors**
MAT 2666	Encryption and Decryption Process Using Number Theory Techniques and Simple graph **Authors:** Bhavya K, Vasudeva
MAT 2667	Exploring Distance Magic Labeling in Double star Graphs **Authors:** Chaithra K
MAT 2697	Jacobian-Based Velocity Control Framework for a Five-Link Inchworm-Inspired Climbing Robot **Authors:** Navya Manjegowda and Muralidhara
MAT 2698	Bayesian Small-Area Estimation of District-Level Diabetes Prevalence in India Using Environmental and Demographic - Geo Covariates **Authors:** L. Raghavendra, P. Ramakrishna Reddy, B. Sarojamma
MAT 2719	A Comprehensive Review of Alumina Nanofluids for Heat Transfer Applications **Authors:** Shivani S, Kumudakshi, Venkatesh Babu K P, Vijay V S
MAT 2689	SEM-driven characterization of 3D-printed UHV hole **Authors:** Vineet Kumar, Peter KÃºÅ¡, JiÅ™Ã HajnyÅ¡, Michal Hejduk

MAT2 718	A Comparative Analysis of Classical and Kernel-Enhanced GARCH Models for Bitcoin Volatility with Oil Price Effects **Authors:** Ashwini Kumari,Naveena, Manjula
MAT 2720	On A New Class of Integrals Involving generalized Hypergeometric Function **Authors:** Ambika N,Shantha Kumari Kurumujji

* * * * * * * * *