BML MUNJAL UNIVERSITY ™
A **HERO GROUP** INITIATIVE

Schedule of Events

Day #1 (Sep 06, 2022)	
Time	**Registration & Inaugural, Venue: Auditorium**
08:30am-9:15am	Registration (Registration Desk)
09:15am-10:00am	Opening Ceremony
10:00am-10:20am	**High Tea (E2 Cafeteria)**
Session-I	**Chair: Prof. Neela Nataraj, Venue: GBL-01**
10:30am-11:15am	Prof. Amiya K. Pani (PT1) *(Title: Global stabilization of the Viscous Burgers' equation by nonlinear Neumann boundary feedback control: Theory and finite element analysis)*
11:15am-12:00pm	Prof. Carsten Carstensen (PT2) *(Title: Towards adaptive hybrid high-order methods (HHO))*

Session-II	**PS-I Chair: Prof. Prabha Sharma, Venue: HUB-A**	**PS-II Chair: Prof. Thirupati Gudi, Venue: HUB-C**
12:00pm-12:30pm	Prof. Rajen Sinha (IT1) *(Title: Local a posteriori error estimates for boundary control problems governed by nonlinear parabolic equations)*	Prof. Zhi Zhou (IT2) *(Title: Numerical analysis of diffusion coefficient identification for elliptic and parabolic systems)*
12:30pm-1:00pm	Prof. Thirupati Gudi (IT3) *(Title: Dirichlet boundary optimal control problem: Energy space formulation and approximation)*	Prof. Buyang Li (IT4) *(Title: Exponential convolution quadrature for nonlinear subdiffusion equations with nonsmooth initial data)*

01:00pm-02:00pm	**Lunch Break (E2 Cafeteria)**
Session-III	**Industry Session, Chair: Prof. A.K. Prasada Rao, Venue: GBL-01**
02:00pm-02:15pm	Mr. Nagendra Naram (American Towers Corporation)
02:15pm-02:30pm	Mr. Devavrat Walinjkar (CAIRN India, Oil & Gas Division of Vedanta Group)
02:30pm-02:45pm	Mr. Vikrant Singh (BatX Energies)
02:45pm-03:00pm	Mr. Nagesh A.S. (Hero Electric)

Session-IV	PS-I, Chair: Prof. Apala Majumdar, Venue: HUB-A	PS-II, Chair: Prof. Anil K. Pundir, Venue: HUB-C
03:00pm-03:30pm	Prof. Malay Banejree (IT5) *(Title: Numerical detection of bifurcations of spatio-temporal patterns)*	Prof. Aekta Aggarwal (IT6) *(Title: Recent results in numerical approximations of hyperbolic systems)*
03:30pm-03:45pm	**Tea/Coffee Break (HUB Foyer)**	

Session-V	Chair: Prof. Amiya K. Pani, Venue: GBL-01	
03:45pm-04:30pm	Prof. Daniele Boffi (PT3) *(Title: On the coupling of fluids and solids)*	
04:30pm-05:15pm	Prof. C.S. Upadhyay (PT4) *(Title: Experiences with multi-scale modeling of the thermo-inelastic response of composite materials)*	
Session-VI	**Special Session (In honor of Prof. Amiya K. Pani & Prof. Carsten Carstensen)** Chair: Prof. Neela Nataraj, Venue: GBL-01	
05:15pm-07:00pm	Session for honoring/wishing Prof. Amiya K. Pani & Prof. Carsten Carstensen	
Conference Dinner (07:30pm-9:30pm), Venue: Red Fox Hotel, Bhiwadi		

Day #2 (Sep 07, 2022)		
Session-I	Chair: Prof. Olivier Pironneau, Venue: GBL-01	
09:00am-09:45am	Prof. M. Vanninathan (PT5) *(Title: Macro dispersion coefficients)*	
Session-II	Chair: Prof. Daniele Boffi, Venue: GBL-01	
09:45am-10:30am	Francois Golse, Frederic Hecht, <u>Olivier Pironneau</u>, Pierre-Henri Tournier and Didier Smetz (PT6) *(Title: Numerical Methods for the Radiative Transfer Equations for the Atmosphere)*	
Session-III	PS-I, Chair: Prof. Thirupati Gudi, Venue: HUB-A	PS-II, Chair: Prof. Harish Kumar, Venue: HUB-C
10:30am-11:00am	Prof. Michele Ruggeri (IT7) *(Title: Numerical methods for inertial spin dynamics in ferromagnets and antiferromagnets)*	Prof. Utpal Manna (IT8) *(Title: Wong-Zakai approximations in micromagnetism)*
11:00am-11:30am	Prof. Heiko Gimperlin (IT9) *(Title: NA)*	Prof. Apala Majumdar (IT10) *(Title: Solution landscapes for nematic liquid crystals with elastic anisotropy in two dimensions)*

11:30am-11:40am	**Tea/Coffee Break (HUB Foyer)**		
Session-IV	**Chair: Prof. C.S. Upadhyay, Venue: GBL-01**		
11:40am-12:25pm	Prof. Rathish Kumar (PT8) *(Title: PDE Based Image Analysis: Theory, Computation and Application)*		
Session-V	**PS-I, Chair: Prof. Michele Ruggeri, Venue: HUB-A**	**PS-II, Chair: Prof. Apala Majumdar, Venue: HUB-C**	
12:25pm-12:55pm	Prof. Ricardo Ruiz Baier (IT11) *(Title: Mixed formulations for poroelasticity/free flow using total pressure)*	Prof. Harish Kumar (IT14) *(Title: High-order finite-difference entropy stable schemes for two-fluid relativistic plasma flow equations)*	
12:55pm-01:25pm	Prof. Dietmar Gallistl (IT13) *(Title: Convergence of a regularized finite element discretization of the two–dimensional Monge–Ampere equation)*	Dr. Akhlaq Husain *(Title: Spectral element methods for 3D elliptic problems on non-smooth domains)*	
01:25pm-02:15pm	**Lunch Break (E2 Cafeteria)**		
Session-VI	**Chair: Prof. Rajen K. Sinha, Venue: GBL-01**		
02:15pm-03:00pm	Prof. S. Sundar (PT7) *(Title: Modelling pedestrian crowd dynamics and interaction with obstacles)*		
Session-VII	**PS-I, Chair: Prof. Arbaz Khan, Venue: HUB-A**	**PS-II, Chair: Prof. Utpal Manna, Venue: Hub-B**	**PS-III, Chair: Prof. Subhashree M., Venue: HUB-C**
03:00pm-03:20pm	Prof. Dhanumjaya Palla (ET1) *(Title: Orthogonal spline collocation method for two-dimensional Helmholtz problems with interfaces)*	Prof. Anil K. Pundir (ET2) *(Title: Virtual element methods for optimal control problems involving elliptic partial differential equations)*	Prof. Sarvesh Kumar (ET3) *(Title: Three and four fields mixed formulations in poroelasticity)*
03:20pm-03:40pm	Prof. Lokpati Tripathi (ET4) *(Title: An H^1-Galerkin mixed FEM for time fractional partial differential equations with an application to finance)*	Prof. Asha Kisan Dond (ET5) *(Title: A posteriori error analysis for a distributed optimal control problem governed by the Von Karman equation)*	Prof. Saumya Bajpai (ET6) *(Title: A three-step two-grid finite element method for the Boussinesq system of equations)*
03:40pm-04:00pm	**Tea/Coffee Break (HUB Foyer)**		
Session-VIII	**Chair: Prof. Daniele Boffi, Venue: GBL-01**		

04:00pm-04:45pm	Prof. E.J. Park (PT9) *(Title: Polygonal staggered Galerkin methods)*

Session-IX	**Industry Session, Chair: Prof. A.K. Prasada Rao, Venue: GBL-01**
04:45pm-05:00pm	Mr. Manu J. Nair (EtherealX)

Session-X	**PS-I, Chair: Prof. Neela Nataraj, Venue: HUB-A**	**PS-II, Chair: Prof. Harsha Hutridurga, Venue: HUB-B**	**PS-III, Chair: Prof. Subhashree M., Venue: HUB-C**
05:00pm-05:15pm	Mr. Benedikt Gräßle HU (CT1) *(Title: Stabilization-free reliable and efficient a posteriori error control for HHO)*	Mr. James Dalby (CT2) *(Title: One-dimensional ferronematics in a channel: order reconstruction, bifurcations and multistability)*	Mr. Kallol Ray (CT3) *(Title: A three step two-grid method for discontinuous Galerkin approximations to the time-dependent incompressible Navier-Stokes equations)*
05:15pm-05:30pm	Mr. Swapnil Kale (CT4) *(Title: Penalized domain embedding method to solve PDEs over curved domains with structured triangular mesh)*	Mr. Wasim Akram (CT5) *(Title: Feedback stabilization of a parabolic coupled system and its numerical study)*	Ms. Swati (CT 26) *(Title: Lie symmetry reduction, optimal system, analytical solutions and conservation laws of Rosenau regularized long wave equation)*
05:30pm-05:45pm	Ms. Aliya Kazmi (CT7) *(Title: Least-squares spectral element preconditioners for elliptic boundary layer problems)*	Dr. Bishnu Ghosh (CT8) *(Title: A novel numerical scheme for 2D quasi-linear hyperbolic equation on an irrational domain: Application to uniform transmission line equation)*	Dr. S. Karthikeyan (CT9) *(Title: Lie group analysis of the effects of radiation on free convective heat and mass transfer flow upon an inclined stretched surface)*

Session-XI	**Chair: Prof. E. J. Park, Venue: GBL-01**
05:45pm-06:30pm	Prof. Graeme Fairweather (PT10) *(Title: The reformulation and numerical solution of some nonclassical boundary value problems and initial/boundary value problems)*

Session-XII	**Chair: Prof. Arbaz Khan, Venue: GBL-01**
06:30pm-07:00pm	Prof. David Mora H. (IT15) *(Title: A virtual element method for problems in fluid mechanics)*

Cultural Program (BMU Student Clubs) (07:00pm-8:00pm)
Dinner (E2 Cafeteria) (08:00pm-09:30pm)
Day #3 (Sep 08, 2022)

Session-I	**Chair: Prof. Thirupati Gudi, Venue: HUB-A**

09:00am-09:45am	Prof. G.P. Raja Sekhar (PT11) *(Title: Mathematical modeling of multi-phase flow models in oil reservoirs)*
Session-II	**Chair: Prof. Utpal Manna, Venue: GBL-01**
09:45am-10:30am	Prof. Zhonghua Qiao (PT12) *(Title: Energy stability and error analysis of a maximum bound principle preserving scheme for the dynamical Ginzburg-Landau equations of Super conductivity)*

Session-III	**PS-I, Chair: Prof. Apala Majumdar, Venue: HUB-A**	**PS-II, Chair: Prof. Aekta Aggarwal, Venue: HUB-C**
10:30am-11:00am	Prof. Harsha Hutridurga (IT16) *(Title: Convergence to equilibrium in degenerate systems)*	Prof. Arbaz Khan (IT17) *(Title: Stochastic Mixed Finite element approximation for linear elasticity with uncertain inputs)*

11:00am-11:20am	**Tea/Coffee Break (HUB Foyer)**	

Session-IV	**PS-I, Chair: Prof. Saumya Bajpai, Venue: HUB-A**	**PS-II, Chair: Prof. Asha Kisan Dond, Venue: Hub-B**	**PS-III, Chair: Prof. Dhanumjaya P., Venue: HUB-C**
11:20am-11:40am	Dr. Ajit Patel (ET7) *(Title: Primal hybrid method for quasilinear parabolic problems)*	Dr. Rekha Khot (ET8) *(Title: Nonconforming virtual elements for the biharmonic equation with Morley degrees of freedom on polygonal meshes)*	Dr. Deepjyoti Goswami (ET9) *(Title: Discontinuous Galerkin finite element error analysis for Oldroyd model of order one)*
11:40am-12:00pm	Dr. Sangita Yadav (ET10) *(Title: HDG method for non-linear Klein-Gordon equations)*	Dr. Gaddam Sharat (ET11) *(Title: A C^0 interior penalty method for the von Karman obstacle problem)*	Dr. Avijit Das (ET12) *(Title: An efficient DWR-type a posteriori error bound of SDFEM for singularly perturbed convection-diffusion PDEs)*

Session-V	**Chair: Prof. Carsten Carstensen, Venue: GBL-01**
12:00pm-12:45pm	Prof. Alexandre Ern (PT13) *(Title: Hybrid high-order methods for the biharmonic problem)*

12:45pm-02:00pm	**Lunch Break (E2 Cafeteria)**

Session-VI	**PS-I, Chair: Prof. Neela Nataraj, Venue: HUB-A**	**PS-II, Chair: Prof. Prof. Lokpati Tripathi, Venue: HUB-B**	**PS-III, Chair: Prof. Subhashree M., Venue: HUB-C**
02:00pm-02:15pm	Mr. Joydev Haldar (CT10)	Mr. Pradeep Sahu (CT11)	Dr. Shantiram Mahata

	(Title: A stable scheme to McKendrick-Von Foerster equation with diffusion)	*(Title: Modified wave numbers for fractional derivatives)*	(ET13) *(Title: Nonsmooth data optimal error estimates by energy arguments for subdiffusion equations with memory)*
02:15pm-02:30pm	Mr. Aniruddha Seal (CT12) *(Title: Convergence analysis of a second-order scheme for fractional differential equations with integral boundary conditions)*	Ms. Jaspreet Kaur (CT13) *(Title: An efficient numerical method for time-fractional Black-Scholes equation arising in finance)*	
02:30pm-02:45pm	Mr. Bikram Bir (CT14) *(Title: A penalized finite element method for the Oldroyd model of order one)*	Ms. Sushmita Anand (CT15) *(Title: Solitary wave solutions of the Degasperis-Procesi equation via Lie symmetry approach)*	Mr. Krishan Kumar (ET16) *(Title: Discontinuous Galerkin method for the Vlasov-Burgers equation)*
02:45pm-03:00pm	Ms. Garima (CT17) *(Title: Numerical method for 2D elliptical singularly perturbed problem with shifts of mixed type)*	Mr. Tarun Sharma (CT18) *(Title: Fractional Kirchhoff Hardy problems with weighted Choquard and singular nonlinearity)*	Mr. Jai Tushar (C19) *(Title: Virtual element methods for general linear elliptic interface problems on polygonal meshes with small edges)*
03:00pm-03:15pm	Ms. Shweta (CT20) *(Title: Evolution of shock waves in non-ideal gas with interstellar gas clouds)*	Mr. Gaurav (CT21) *(Title: On the existence of Simple Waves for 2-D non-ideal Magneto-hydrodynamics)*	Ms. Neha Trivedi (CT22) *(Title: Study of three collinear cracks in a composite medium)*
03:15pm-03:30pm	Ms. Jyoti Jaglan (CT23) *(Title: A new strong stability preserving multiderivative time marching method for stiff reaction diffusion systems)*	Ms. Ravina Shokeen (CT24) *(Title: Primal Hybrid Method for Strongly Non-linear Parabolic Problems)*	Ms. Jyoti Yadav (CT25) *(Title: An approximate analytical approach of generalized Boussinesq equation by variational iteration method)*
03:30pm-03:45pm	**Tea/Coffee Break (HUB Foyer)**		
Session-VII	**Chair: Convenors, Auditorium**		
03:45pm-04:15pm	**Closing Ceremony**		

Abbreviations:
PT: Plenary Talk
IT: Invited Talk
ET: Exclusive Talk
CT: Contributed Talk