Schedule of events for 4\textsuperscript{th} ICMC 2018

Department of Mathematical Sciences
Indian Institute of Technology (BHU) Varanasi

Date: January 08, 2018
Venue: Department of Mathematical Sciences, New/Faculty Building, 2\textsuperscript{nd} Floor, Room No. 310

Time: 5:00 PM to 6:00 PM - Registration

Venue for all the session of the conference:

Prof. Gopal Tripathi Auditorium
Dept. of Chemical Engineering, IIT (BHU), Varanasi, 221005
Adjacent to SBI, IIT (BHU)
Date: January 09, 2018 (Day 1)

08:00 AM – 09:00 AM  Registration & Breakfast
09:00 AM – 10:00 AM  Inaugural Session
10:00 AM – 10:30 AM  High Tea

10:30 AM – 11:30 AM  Keynote Talk by Prof. T. S. Ho, University of Surrey, UK
Title of Talk: Applications of Benford’s Law for Multimedia Security and Forensics
Chairperson: Prof. Kouichi Sakurai

11:30 AM – 12:30 PM  Keynote Talk by Prof. A. K. Pujari, University of Rajasthan, India
Chairperson: Prof. Kouichi Sakurai

12:30 PM – 1:15 PM  Invited Talk by Prof. R. N. Mahapatra, University of Central Florida, Orlando, USA
Title of Talk: Epidemiological models with mutating pathogens
Chairperson: Prof. Ekram Savas

1:15 PM – 2:00 PM  Lunch Break

2:00 PM – 2:45 PM  Invited Talk by Prof. Matti Vuorinen, University of Turku, Finland
Title of Talk: Computation of Condenser Capacity
Chairperson: Prof. Ekram Savas

2:45 PM – 3:30 PM  Invited Talk by Prof. Srinivas R. Chakravarthy, Kettering University, USA
Title of Talk: A Dynamic Non-preemptive Priority Queueing Model with Two Types of Customers
Chairperson: Prof. R. Srivastava

3:30 PM – 4:15 PM  Invited Talk by Dr. Srinivas Pyda, Oracle's System's Technology, USA
Title of Talk: Mathematics in Machine Learning
Chairperson: Prof. S. Ponnusamy
4:15 PM – 4:30 PM  Tea/Coffee Break

4:30 PM – 5:15 PM  Invited Talk by Dr. Parisa Hariri, University of Turku, Finland
Title of Talk: Comparison Theorems for Hyperbolic Type Matrices
Chair person: Prof. S. Ponnusamy
Session Chair: Prof. Debasis Giri

**Identifying Individuals using Fourier and Discriminant Analysis of Electrocardiogram**
Ranjeet Srivastva and Yogendra Narain Singh

**Fully Dynamic Group Signature Scheme with Member registration and Verifier-local Revocation**
Maharage Nisansala Sevwandi Perera and Takeshi Koshiba

**Fourier-based Function Secret Sharing with General Access Structure**
Takeshi Koshiba

**Norm inequalities involving upper bounds for operators in Orlicz-Taylor sequence spaces**
Atanu Manna

**Achieving Better Security using Nonlinear Cellular Automata as a Cryptographic Primitive**
Swapan Maiti and Dipanwita Roy Chowdhury

**Discrete Legendre collocation methods for Fredholm-Hammerstein integral equations with weakly singular kernel**
Bijaya Panigrahi
Session Chair: Prof. Srinivas R. Chakraborty

A Survey on Automatic Image Captioning
Gargi Srivastava and Rajeev Srivastava

On $M/G(a,b)/1/N$ queue with batch size and queue length dependent service
Gopal Gupta and A. Banerjee

Recent Deep Learning Methods for Melanoma Detection: A Review
Nazneen N Sultana and N.B. Puhan

Biometric Recognition using Electrocardiogram
Anita Pal and Yogendra Narain Singh

Local and Global Stability of Fractional Order HIV/AIDS Dynamics Model
Praveen Kumar Gupta

A delayed non-autonomous predator-prey model with Crowley-Martin functional response
Jai Prakash Tripathi and Vandana Tiwari

7:00 PM – 8:30 PM: Dinner
Date: January 10, 2018 (Day 2)

08:00 AM – 09:00AM Registration & Breakfast

January 10, 2018 (Day 2) 09:00 AM – 10:30 AM Technical Session II.A

Session Chair: Dr. Anuradha Banerjee

Stoichio Simulation Of Facsp From Graph Transformations To Differential Equations
Helen Chandra, Philomenal J. Karoline, Mary Imelda Jayaseeli and S. T. Kalavathy

Context Sensitive Steganography on Hexagonal Interactive System
Helen Chandra, T. Nancy Dora and Saroja Theerdus Kalavathy

Multiple Handed Hexagonal Tile Assembly Model on Interactive Systems
Helen Chandra, T. Nancy Dora and Saroja Theerdus Kalavathy

A Study on Complexity Measure of Diamond Tile Self-Assembly System
Helen Chandra, M. Nithya Kalyani and Saroja Theerdus Kalavathy

On Love wave frequency under the influence of linearly varying shear moduli, initial stress and density of orthotropic half space
Sumit Vishwakarma

Efficient Numerical Methods for Linear Reaction-Diffusion System
Aswin Vs and Ashish Awasthi
Session Chair: **Prof. Santwana Mukhopadhyay**

**Texture and Color Visual Features based CBIR using 2D DT-CWT and Histograms**
Jitesh Pradhan, Sumit Kumar, Arup Kumar Pal and Haider Banka

**On Leaf Node Edge Switchings in Spanning Trees of De Bruijn Graphs**
Suman Roy, Srinivasan Krishnaswamy and Potnuru V. Kumar

**Existence of equilibrium solution of the coagulation-fragmentation equation with linear fragmentation kernel**
Debdulal Ghosh and Jitendra Kumar

**A fuzzy random continuous ($Q,r,L$) inventory model involving controllable back-order rate and variable lead-time with imprecise chance constraint**
Debjani Chakraborty, Sushil Kumar Bhuiya and Debdas Ghosh

**A study of an EOQ model under cloudy fuzzy demand rate**
Snigdha Karmakar, Sujit Kumar De and A Goswami

**A Filtering Technique for All Pairs Approximate Parameterized String Matching**
Shibsankar Das

10:30 AM – 10:45 AM  **Tea/Coffee Break**
January 10, 2018 (Day 2)

10:45 AM – 11:45 AM Invited Talk by Prof. Kalyan Chakraborty, Harish-Chandra Research Institute, Allahabad, India
Title of Talk: Pell-Type Equations and Class Numbers of Cyclotomic Fields
Chair person: Prof. A. K. Pujari

11:45 AM – 12:45 PM Invited Talk by Prof. S. Ponnusamy, Indian Statistical Institute Chennai
Title of Talk: Bohr's Inequalities for Harmonic Mappings and Beyond
Chair person: Prof. Kalyan Chakraborty

1:00 PM – 2:00 PM Lunch Break

2:00 PM – 02:45 PM Invited Talk by Prof. Debasis Giri, Haldia Institute of Technology, India
Title of Talk: Authenticated Encryption on Long Messages
Chair person: Prof. A. K. Pujari

2:45 PM – 3:30 PM Invited Talk by Prof. Kouichi Sakurai, Kyushu University, Fukuoka, Japan
Title of Talk: Non-commutative approach enhance security of cryptosystems — From Ong-Schnorr-Shamir via Sato-Araki towards Post Quantum Paradigm
Chair person: Prof. T. S. Ho

3:30 PM - 4:15 PM Invited Talk by Prof. Chris Rodger, Auburn University, Alabama, USA
Title of Talk: Constructions and Embeddings of Hamilton Decompositions of Families of Graphs
Chair person: Prof. T. S. Ho

4:15 PM – 4:30 PM Tea/Coffee Break
January 10, 2018 (Day 2)  
4:30 PM – 5:15 PM  
**Invited Talk by Prof. S. K. Mishra**, Banaras Hindu University, India  
**Title of Talk:** *On Strong Pseudomonotone and Strong Quasimonotone Maps*  
**Chair person:** Dr. D. Ghosh

January 10, 2018 (Day 2)  
05:15 PM – 06:30 PM  
**Technical Session III.A**

**Session Chair:** Prof. T. Som

*Estimation of the location parameter of the general half-normal distribution*  
Lakshmi Kanta Patra, Somesh Kumar and Nitin Gupta

*Numerical study on the influence of diffused soft layer in pH regulated polyelectrolyte coated nanopore*  
Subrata Bera, Somnath Bhattacharyya and Hiroyuki Ohshima

*Effect of upper and lower moving wall on mixed convection of Cu-water nanofluid in a square enclosure with non-uniform heating*  
Sanjib Kr Pal and Somnath Bhattacharyya

*A note on necessary condition for $L^p$ multipliers with power weights*  
Rajib Haloi

*Quadruple Fixed Point Theorem For Partially Ordered Metric Space With Application To Integral Equations*  
Manjusha Gandhi and Anushri Aserkar

*On the Relationship between $L$-fuzzy Closure Spaces and $L$-fuzzy Rough Sets*  
Vijay K. Yadav, Swati Yadav and S.P. Tiwari

*Reduction in Execution Cost of k-Nearest Neighbor based Outlier Detection Method*  
Sanjoli Poddar and Bidyut Kr. Patra
Session Chair: Prof. L. P. Singh

Cauchy Poisson Problem for Water with a Porous Bottom
Piyali Kundu, Sudeshna Banerjea and B N Mandal

A Coupled Fixed Point Theorem Satisfying -Contractive Condition and its Application to Ordinary Differential Equations
Anushree Aserkar

Second Hankel Determinant for a Class of Alpha-Close-to-Convex Functions
Pravati Sahoo

Approximate controllability of a quasilinear differential equation with deviating arguments
Duranta Chutia

Exponential Spline Method for One Dimensional Nonlinear Benjamin-Bona-Mahony-Burgers Equation
Ravi Kanth A.S.V. and Deepika Sirswal

The problem on oblique scattering by a thin vertical submerged plate – revisited
Bablu Das

07:00 PM – 09:00 PM BANQUET DINNER
Date: January 11, 2018 (Day 3)

8:00 AM – 9:00 AM  Breakfast

January 11, 2018 (Day 3)  09:00 AM – 10:30 AM  Technical Session IV.A

Session Chair: Prof. Chris Rodger

Existence and Uniqueness of Navier-Stokes Equations with Slip Boundary Conditions
Subha Pal

Application of the fractional differential transform method to the first kind Abel integral equation
Shubhabrata Mandal

Two Dimensional Mathematical Modeling of Viscous Air Flow Inside Pulmonary Region
Jyoti Kori

Left Generalized Multiplicative Derivations On 3-Prime Near-Rings
Aslam Siddeeque

A uniformly convergent NIPG method for a singularly perturbed system of reaction-diffusion BVP
Goutam Singh

Effect of diffuse soft layer on electroosmotic flow through soft nanochannel
Naren Bag and Somnath Bhattacharyya

Electroosmotic flow around a dielectric uncharged spherical droplet: a numerical study
Partha Sarathi Majee and Somnath Bhattacharyya
Session Chair: **Prof. S. Das**

*A comparative study of modified homotopy analysis method and multistep homotopy analysis method with reference to space-time fractional telegraph equation*

Sangeeta Choudhary

*Generalizations and applications of Srinivasa Ramanujan’s integral RS(m;n) via hypergeometric approach and integral*

M. I. Qureshi and Showkat Ahmad Dar

*Hydromagnetic flow of immiscible fluids through the channels filled with a porous medium of high porosity*

Sneha Jaiswal

*Repeated burst error correcting linear codes over G(q): q = 3*

Subodh Kumar

*Fuzzy Goal Programming Approach for Resource Allocation in an operation*

Vinaytosh Mishra

10:30 AM – 11:00 AM  **Invited Talk by Dr. Arvind, SCUBE India**
Chairperson: **Prof. T. Som**

11:00 AM – 11:45 AM  **Invited Talk by Prof. Ekrem Savas**
Chairperson: **Prof. S. Mukhopadhyay**

11:45 AM – 12:30 PM  **CLOSING SESSION**

12:30 PM – 1:30 PM  **Lunch**