5th National Undergraduate Mathematics Olympiad 2013
(Final Event)
Venue: IUB Central Court

Thursday 20 March, 2014

08:30	Registration of the participants
09:00	Participants and guests assemble in the IUB Centre Court
09:10	National Anthem and Flag Hoisting
	Declaring the Olympiad open
09:30	Competition starts
11:00	Competition ends
11:05	Refreshment
11:10	Recreation (Room: 5002)
12:30	Lunch distribution
13:30	Result declaration (Room: 5002)

Note. Prizes and certificates will be awarded to top ten participants in the
Inaugural Session of the 18th Mathematics Conference to be held at 15:00
in the IUB Multipurpose Hall.

Inaugural Ceremony
18th International Mathematics Conference
Venue: IUB Multipurpose Hall
20 March 2014, 15:00-16:40

Session Chair: Prof. M. Anwar Hossain, President, Bangladesh Mathematical Society

15.00	Guests and Participants take seats
15.05	Chief Guest and Special Guests take seats in the dais
15.10	Welcome Address by Prof. M. Anwer, Chair, Local Organizing Committee
15.15	Introduction of Foreign Participants by Prof. Laek Sazzad Andallah, Secretary, Bangladesh Mathematical Society
15.20	Addresses by the Special Guests
	Ms. Sayyada R. Ghuznavi , Acting Chairman, Board of Trustees, A.F. Muzibur Rahman Foundation
	Mr. Rashed Chowdhury, Chairman, Board of Trustees, Independent University, Bangladesh
	Prof. A. A. M. S. Arefin Siddique, Vice-Chancellor, University of Dhaka
15.50	Address by the Chief Patron Prof. M. Omar Rahman, Vice-Chancellor, Independent University, Bangladesh
16.00	Address by the Chief Guest Prof. A. K. Azad Chowdhury, Chairman, University Grants Commission, Bangladesh
16.10	Introducing the top ten participants of the Final Event of 5th National Undergraduate Mathematics Olympiad by Prof. Khodadad Khan, Event Convener Awarding Prizes and Certificates to the Successful Participants
16.30	Address by Session Chair Prof. M. Anwar Hossain, President, Bangladesh Mathematical Society
16.35	Vote of Thanks by Dr Habib Bin Muzaffar, Head,Department of Physical Sciences, Independent University , Bangladesh and Conference Organizing Secretary

16.40-17.00   Refreshment

17.00 – 18.00

Plenary Session
Key Note Address on Mathematics as a Key to Development

Chair: Prof. M. Anwer (Independent University, Bangladesh)
Introducing the Keynote Speaker
Keynote address by Prof. Jamilur Reza Chowdhury (Vice-Chancellor, University of Asia Pacific, Dhaka, Bangladesh)

END OF THURSDAY PROGRAM

In Remembrance of Late Professor Jamal Nazrul Islam	21 March 2014 09:00-10:30	Room : 5002

Chairperson: Prof. A. M. Harunar Rashid, Formerly of University of Dhaka, Bangladesh

Invited Speakers:
Mrs. Suraiya Islam, wife of late Prof. Jamal Nazrul Islam
Mrs. SadafSaazSiddiqi , daughter of late Prof. Jamal Nazrul Islam
Prof. A MonsurChowdhary, Research Centre for Mathematical and Physical Sciences (RCMPS), University of Chittagong,
Prof. Nurul Islam, Professor, University of Dhaka

Open Discussion

---------------------------------Tea Break : 10:30-10:45 a.m----------------------------

Session Schedule: 21 March 2014, Friday

Technical Session 1A: Applied Mathematics	21 March 2014 10:45-12:30	Room: 6009

Chairperson: Prof. Amulya Chandra Mandal, University of Dhaka, Bangladesh

Invited Talk:
An EOQ Model with constant Deterioration and Periodic Time
Dr. Karabi Dutta Choudhury, Assam University, India

Contributory Talks:

Comparative Numerical Studies of Richtmyer-Meshkov Instability with Nonlinear Analysis using Conservative Front Tracking Method
Mohammed Aman Ullah, Department of Mathematics, University of Chittagong, Bangladesh
Mao De-kang, Shanghai University, China

A Procedure to Fit an Interpolating Curve to a Set of Logistic Data
Md. Shariful Islam and A.F.M. Khodadad Khan Independent University, Bangladesh
Mir Shariful Islam, UITS, Bangladesh
Md. Showkat Ali, Dhaka University, Bangladesh

Seasonal Long Memory Process
ShipraBanik and A.F.M. Khodadad Khan, Independent University, Bangladesh

Generalized Inverses of Periodic Matrix Pairs and their Application to Model Reduction of Periodic Systems
Mohammad-Sahadet Hossain, North South University, Bangladesh
Peter Benner, Max Planck Institute for Dynamics of Complex Technical Systems, Germany

Significance of Heat Storage in the Performance of Solar Adsorption Cooling System
Rifat A. Rouf and K.M Ariful Kabir, Independent University, Bangladesh

Dr. K. C. Amanul Alam,East West University, Bangladesh
M. A. Hakim Khan, BUET, Bangladesh

Technical Session 1B: Pure Mathematics	21 March 2014 10:45-12:30	Room: 5013

Chairperson: Prof. Munibur Rahman Chowdhury, University of Dhaka, Bangladesh

Invited Talk:
Diophantine approximation with applications to dynamical systems
Professor Michel Waldschmidt, Université Pierre et Marie Curie, FRANCE

Wreath Sum of Near-rings and Some Space Biased Aspects of Near-rings and Near-ring Groups
K.C. Chowdhury, Gauhati University, India
On the Diophantine Equations $a2 = b2 + c2 + bc$
Abdullah-Al-Kafi Majumdar, Ritsumeikan Asia-Pacific University (APU), Japan

Contributory Talks:

Jordan k-Derivations on Lie Ideals of Prime Gamma Rings
Akhil Chandra Paul and Ayesha Nazneen, Rajshahi University, Bangladesh.

Orthogonal Derivations and Bi-derivations in Semiprime Gamma Rings
Kalyan Kumar Dey and Akhil Chandra Paul,Rajshahi University, Bangladesh.

α-Ideals In 0-Distributive Semilattices
H.S. Chakraborty , Bangabandhu Sheikh MujiburRahman Science and Technology University, Bangladesh
M.R. Talukder, Shahjalal University of Science and Technology, Bangladesh

On Matrices Over Path Algebra
Kanak Ray Chowdhury, Mohammadpur Model School and College, Bangladesh
Abeda Sultana, Jahangirnagar University,Savar, Bangladesh
Nirmal Kanti Mitra, University of Business and Technology, Bangladesh
A.F.M. Khodadad Khan, Independent University, Bangladesh

Technical Session 1C: THEORETICAL PHYSICS AND COSMOLOGY	21 March 204 10:45-12:30	Room: 6013

Chairperson: Prof. Amal K. Haldar, University of Dhaka

Invited Talk:
Geometry: The Basic Tool in Relativity Theory
SubenoyChakraborty, Jadavpur University, India

Contributory Talks:

Nonlinear Localized Dust-acoustic Waves via Vortex-like Ion Distribution in Plasma
O. Rahman, MawlanaBhashani Science and Technology University, Bangladesh

A Redefinition of Hawking Temperature on the Event Horizon: Thermodynamical Equilibrium
SubhajitSaha and SubenoyChakraborty, Jadavpur University, India

Exact Solutions Of Damped Non-Linear Harmonic Equations Using Ermakov Invariant
Mohammed Ashraful Islam, University of Chittagong, Bangladesh

Quantum Geometry
AbulKalam Mohammad and Mehedi Hassan, sciencetech24.com, Bangladesh

Solution of Bianchi type I cosmological model in Lyra geometry
Mohammed Ashraful Islam, University of Chittagong, Bangladesh
Md. SayeedIftekharYousuf, University of Information Technology and Sciences, Bangladesh.

Will There be Again a Transition from Acceleration to Deceleration in Course of the Dark Energy Evolution of the Universe?
Supriya Pan and SubenoyChakraborty, Jadavpur University, India

The Universe From The Before Creation To After Extirpate
Mohammad MizanurRahman, Dinnath Sen Road, Bangladesh

Almost Pseudo Ricci Symmetric Viscous Fluid Spacetime
Buddhadev Pal and Arindam Bhattacharyya, Jadavpur University, India

Anisotropic Bianchi type-I Cosmological Model for viscous Fluid in Modified Brans-Dicke Cosmology
Mohammed Ashraful Islam, University of Chittagong, Bangladesh

Modified Pre-regularization: A General Regularization Prescription for Solving Quantum Field Theoretic Problems
A. Mansur Chowdhury, S. A. Tarafder and M. G. Hafez, University of Chittagong, Bangladesh

Technical Session 1D: COMPUTATIONAL FLUID DYNAMICS	21 March 10:45-12:30 PM	Room: 5014

Chairpereson: Prof. Mustafa Kamal Chowdhury,
Bangladesh University of Engineering and Technology, Bangladesh

Invited Talk:
Natural Convection of Nanofluids in Open Rectangular Cavity
M. Saleem, CASE University, Pakistan
M. A. Hossain, Dhaka University, Bangladesh

Contributory Talks:

Effect of Solid Volume Fraction on Forced Convective Flow of Nanofluid through Direct Absorption Solar Collector
Salma Parvin, RehenaNasrin and M.A. Alim, BUET, Bangladesh

Prandtl Number Effect On Assisted Convective Flow Through A Solar Collector

RehenaNasrin, Salma Parvin and M.A. Alim, BUET, Bangladesh

Air Bubble Effects On Long Waves
Nikhil C. Sarkar, BRAC University
SujitKDebsarma, SAARC Meteorological Research Centre, Bangladesh
Anowarul Islam, Shahjalal University of Science and Technology

Effect of Magnetic Field on Free Convective Flow in a Square Cavity with Different Positions of Heated Square Block
Abdul HalimBhuiyan, M.A. Alim and Md. NasirUddin, Bangladesh University of Engineering and Technology, Bangladesh

Thermophoretic Particle Deposition on Unsteady MHD Forced Convective Flow along a Permeable Wedge with Variable Fluid Properties
A.T.M. Rahman, Dhaka International University, Bangladesh
M.S. Alam, Jagannath University, Bangladesh
M.A. Alimand M.K. Chowdhury, Bangladesh University of Engineering and Technology

On γ-Generalized Closed Sets in Bitopological Space
Arnab Paul and Baby Bhattacharya, National Institute of Technology Agartala, India

Decay of Temperature Fluctuations in Dusty Fluid Homogeneous Turbulence Prior to the Ultimate Period in Presence of Coriolis Force
M. A. K. Azad and Mst. Mumtahinah,University of Rajshahi, Bangladesh

Modeling and Simulation of Microalgae Suspension Flow in a Tubular Reactor for Cleaner Energy
Ujjwal Kumar Deb, Mohammad IftekharMonir, Bangladesh

Numerical Simulation of Thermal Boundary Layer Equations by using Finite Difference Method
Saidul Islam and MobarakHossain,Hamdard University Bangladesh, Bangladesh
RabindraNathMondal, JagannathUniversity,Bangladesh
RinaPerven,Khulna University, Bangladesh

Non-Newtonian Natural Convection Flow along an Isothermal Sphere
SidharthaBhowmick, Jagannath University, Bangladesh
Md. MamunMolla, North South University, Bangladesh

----------------------------------Launch Break : 12:30-14:00----------------------------

Technical Session 2A: Applied Mathematics	21 March2014 14:00-15:45	Room: 6009

Chairperson: Prof. Amulya Chandra Mandal, University of Dhaka

Contributory Talks:

Volume of a Tetrahedron Circumscribed by a Sphere
Arindam Bhattacharyya, Jadavpur University(Kolkata)
TiashaSaha Roy, I.I.T(Guwahati)

Analysis of Numerical Methods for Differential-Algebraic Equations:
The One Step Methods
M. Jamsher Ali, M. Shahjalal and M. Sahadet Hossain, Primeasia University, North South
University, Bangladesh

Numerical Simulation of Equilibria of the Boltzmann Equation Discretized on a *N*-Layer
Loosely Coupled Hexagonal Grid
W.Z.Loskorand, GonoBishawabidyalay, Bangladesh.
L.S.Andallah, Jahangirnagar University, Bangladesh.

Mathematical Modeling And Numerical Simulation Of Insulin Transportation Into Blood
MandiraSamadder, BRAC University, Bangladesh
L.S. Andallah, Jahangirnagar University, Bangladesh

Model Reduction Of Discrete-Time Systems Using SVD-Krylov Based Iterative Method
Ashfiqur Rahmanand Mohammad Sahadet Hossain
North South University, Bangladesh

Quadrature Schemes for Spatial Approximations of a Nonlocal Linear Elasticity Model
Samir Kumar Bhowmik, Md. Nurul Huda and Md. Abdul Matin, Bangladesh

Computing Eigenvalues of the Fourth Order Sturm-Liouville Problems Using Bernstein
Polynomials
Humaira Farzana and S K Bhowmik, Ahsanullah University of Science & Technology,
Bangladesh
Md. Shafiqul Islam, Dhaka University, Bangladesh

Proper Orthogonal Decomposition (POD): Finite
Element Analysis for Magnetic Diffusion
Farasatul Adnan, ArifulKabir, A.F.M. Khodadad Khan, Independent University, Bangladesh
(IUB), Bangladesh

Numerical Analysis of Unsteady Behavior of Cavitating Flow on Hydrofoils Using Finite
Volume Method
M. M. A. Sarker, Bangladesh University of Engineering and Technology, Bangladesh
N. Mostafa, Stamford University Bangladesh, Bangladesh
M. M. Karim, Bangladesh University of Engineering and Technology, Bangladesh

Technical Session 2B: Pure Mathematics	21 March 2014 14:00-15:45	Room: 5013

Chairperson: Professor Akhil Chandra Paul, University of Rajshahi.

Invited Talk:
On the Unique and Bi-unique Range Sets of Meromorphic Functions
Abhijit Banerjee, University of Kalyani, India

Contributory Talks:

Chung-Feller Theorems for Lattice Paths and Their Generalization
Dr. AminulHuq, University of Minnesota Rochester, USA

Convergence analysis of Gauss-type Proximal Point Method for Variational Inequalities
M. H. Rashid, University of Rajshahi, Bangladesh

**Common Fixed Point Theorem For Six Mappings In Semi-metric Space
with E.A. Property**
K. Jha, M.Imdad, Kathmandu University, Nepal
U. Rajopadhyaya, Aligarh Muslim University, India.

A Common Fixed Point Theorem for Compatible Mappings of Type (E) in Metric Space.
Kanhaiya Jha and K. B. Manandhar, Kathmandu University, Nepal
R.P. Pant, Kumaon University, India

Matrix Transformation on Some Sequence Spaces
M. FazlurRahman, Eden University College, Bangladesh

Generalized Cantor Set and Generalized N-Laps Function in Measure Space
Md. Jahurul Islam, Bangladesh Institute of Science & Technology, Bangladesh
Md. Shahidul Islam, University of Dhaka, Bangladesh
Payer Ahmed, Jagannath University, Bangladesh

Strong Convergence Of Two Finite Families Of Strictly Asymptotically Pseudocontractive Mappings
Balwant Thakur, Pt. RavishankarShukla University, India

Technical Session 2C: **Heat and Mass Transfer**	**21 March 2014 14:00--15:45**	**Room: 6013**

Chairperson: Prof. Manirul Alam Sarker , Bangladesh University of Engineering and Technology.

Contributory Talks:

MHD Combined Convection Heat Transfer in a Diverging Heated Channel with Heat Generating Circular Obstacle
Md. S. Alam, Jagannath University, Bangladesh
M.A.H. Khan, Bangladesh University of Engineering and Technology, Bangladesh

Numerical Study of Non- Isothermal Flow through a Micro-Channel
Md. Islam, Hamdard University Bangladesh, Bangladesh
Zohurul Islam and Md. Uddin, Khulna University, Bangladesh
RabindraMondal, Jagannath University, Bangladesh

Spectral Numerical Calculation of Non-isothermal Flow through a Rotating Curved

Rectangular Duct with Moderate Curvature
Zohurul Islam,Jessoreshikkha Board Model School and College, Bangladesh
Md. Islam,Engineering and Technology,Hamdard University Bangladesh, Bangladesh
RabindraMondal, Jagannath University, Bangladesh

Numerical Study of a Three-Bed Adsorption Chiller With Mass Recovery
G. Khatun,Eastern University, Dhaka, Bangladesh
M. Z. I. Khan, Bangladesh University of Engineering and Technology, Bangladesh

Wall Heating Parallel Plate Microchannel Flow
Islam Md. Tajul, Begum Rokeya University
Sarker Md. ManirulAlam, Bangladesh University of Engineering and Technology, Bangladesh
Rahman Md. Lutfor, University of Rajshahi, Bangladesh

**Numerical Investigation on MHD Free Convection Flow in a
Square Open Cavity Containing a Heated Circular Cylinder**
Sheikh Anwar Hossain, Govt. B L College, Bangladesh
Md. A. Alim, BUET, Bangladesh
Satrajit Kumar Saha, Jahangirnagar University, Bangladesh

**Effect of Thermal Radiation and Temperature Dependent Conductivity
On MHD Flows Through A Channel**
M.A.H. Khanand, Bangladesh University of Engineering and Technology, Bangladesh
Md. S. Alam, Jagannath University, Bangladesh

**Pressure stress work on MHD-Conjugate Heat Transfer along a Vertical Flat Plate in
presence of Heat Generation**
Salina Aktar, Jagannath University, Bangladesh
Dr. Md. Abdul Alim, Bangladesh University of Engineering and Technology, Bangladesh
FahmidaFerdousi, Stamford University Bangladesh

Numerical Solution of Heat and Mass Transfer Flow over a Vertical Flat Plate
RabindraMondal, Jagannath University, Bangladesh.
RinaPerven, Khulna University, Bangladesh
Md. Islam, Hamdard University Bangladesh, Bangladesh

**Surface Temperature Distribution Effects on Free Convective Flow along a Vertical Flat
Plate with Temperature Dependent Thermal Conductivity and Viscous Dissipation**
A.K.M. Safiqul Islam, Gowripur Govt. College, Bangladesh
M. A. Alim, Bangladesh University of Engineering and Technology, Bangladesh
Md. Rezaul Karim, Jagannath University, Bangladesh
A.F.M. Khodadad Khan, Independent University Bangladesh, Bangladesh

Technical Session 2D: Fluid Dynamics	21 March 2014 14:00-15:45 PM	Room: 5014

Chairperson: Professor Shamsul Alam Sarker, University of Rajshahi, Bangladesh

Contributory Talks:

Non-Newtonian Natural Convection Flow along an Isothermal Sphere
SidharthaBhowmick, Jagannath University, Bangladesh
MdMamunMolla, North South University, Bangladesh

Numerical Solution of Viscoelastic Fluid Flow through a Vertical Flat Plate with Diffusion-thermo and Thermal-diffusion
Sheikh ImamulHossain, Khulna University, Bangladesh

Numerical simulation of biomagnetic fluid flow in oscillating lid driven cavity
L. K. Saha and M. A. Hossain, University of Dhaka, Bangladesh

Introducing of Air Bubbles Effect on LongWave Equations
Md. Azizur Rahman, Bangladesh

Effects of Viscous Dissipation on MHD Natural Convection Flow along a Vertical Wavy Surface
K. H. Kabir, Department of Mathematics, Mohammadpur Kendriya College,
Dhaka, Bangladesh
M. A. Alim, Department of Mathematics, Bangladesh University of Engineering and
Technology, Dhaka, Bangladesh
L. S. Andallah, Department of Mathematics, Jahangirnagar University, Bangladesh

Numerical Solutions of MHD Natural Convection flow along a Horizontal Cylinder with Internal Heat Generation, Radiation and Viscous Dissipation
M. A. Alim, Department of Mathematics, Bangladesh University of Engineering and
Technology, Dhaka, Bangladesh
M. Miraj, Department of Mathematics, Bangladesh University of Engineering and
Technology, Bangladesh
K. H. Kabir, Department of Mathematics, Mohammadpur Kendriya College,
Dhaka, Bangladesh
-----------------------------------Tea Break : 15:45-16:00-------------------------------------

Symposium on Mathematics Education	**21 March 2014 16.00-18:00**	**Room: 5002**

Chairperson : Prof. M. Shamsher Ali, Bangladesh Academy of Sciences

Keynote Paper: Mathematics Education at the University Level in the Western Countries and Some Reflections on Bangladesh's Problems and Promises
Prof. Saleh Tanveer, The Ohio State University, U.S.A.
(To be presented by Prof. A.F.M. Khodadad Khan, Independent University, Bangladesh)

Discussants:
> Prof. Subrata Mojumder, Formerly of University of Rajshahi
> Prof. S.Suhrabuudin , American International University, Bangladesh

Prof. Siddiqur Rahman , Formerly of IER, University of Dhaka
Mr. Munir Hasan, Bangladesh Mathematics Olympiad Committee
Prof Sharmin Huq , IER, University of Dhaka

Open Discussion

Session Schedule: 22 March 2014, Saturday

Technical Session 3A: MATHEMATICAL BIOLOGY	22 March 2014 9.00-10:45	Room: 6009

Chairperson: Dr. Chandra N. Podder, University of Dhaka.

Invited Talk:
Modeling the Effect of the Cytokine Interleukine-2 on Tumor-immune Dynamics with Michaelis-Menten Kinetics as Functional Responses
MahbuburRahman, University of North Florida, U.S.A.

Contributory talks:

Plankton Dynamics under Nutrient Enrichment where Phytoplankton Infected by Both Contact and Free Virus
RikhiyaDhar, B.P. Poddar Institute of Technology and Management,India
SudipSamanta, Indian Statistical Institute, India

On the Immunotherapy of HIV Infections via Optimal Control with Constraint
Md. Haider Ali Biswas, Khulna University, Bangladesh

The Dynamics of Mathematical Modeling on HBV: Bangladesh Perspective
JannatunNayeem,Ahsanullah University of Science and Technology, Bangladesh
Dr. Chandra N. Podder, University of Dhaka, Bangladesh
UdoySankarBasak, University of Dhaka, Bangladesh

Drug Therapy between T-Cells and DCs reduce the excess production of Keratinocytes:Causal Effect of Psoriasis
Priti Kumar Roy and AbhirupDatta, Jadavpur University, Bangladesh
Xue-Zhi Li, Xinyang Normal University, China

A Modification of the Nested Logistic Population Model for the Study of Classified Population
Md S Hossain,Govt. B. L. College, Bangladesh
L S Andallah,Jahangirnagar University, Bangladesh

Mathematical Study of In-host Dynamics of Herpes Simplex Virus Type 2 to Assess the Impact of Immune Response
Chandra N. Podder, ElhamShahed,and Samir Bhowmik, University of Dhaka
Abba Gumel,University of Manitoba, Canada
S. U. Munsi,Bangabandhu Sheikh Mujib Medical University, Bangladesh
N. Sultana,Sir Salimullah Medical College, Bangladesh

Mathematical Study of HIV and HSV-2 Co-infection
UdoySankarBasak, Dhaka University
JannatunNayeem, AUST, Bangladesh

Technical Session 3B: Pure Mathematics	22 March 2014 9.00-10:45	Room: 5013

Chairperson: Prof. Sajeda Banu, University of Dhaka, Bangladesh

Invited Talk:
Nearness - Another Approach To Deal With The Impreciseness And Uncertainty
Dr.R. N. Bhaumik, Tripura University, India

Contributory Talks:

Nevanlinna's Five Value Theorem and Allied Results
IndrajitLahiri, University of Kalyani, India

Matrix Transformation in the Cesaro Sequence Spaces
M. FazlurRahman, Eden University College, Bangladesh

A Generalization to the Leibnitz Theorem and its Direct Application in Distribution
MianArif Shams Adna and MdForhadHossain, Jahangirnagar University, Bangladesh

On BitopologicalNear Pairwise Paracompactness
AjoyMukharjee, Department of Mathematics, St. Joseph's College, India
M. K. Bose, Department of Mathematics, University of North Bengal, India

**Warped Product Pseudo Slant Submanifold Of An Indefinite
Eta-Einstein Sasakian Manifold**
Bandana Das**,** Jadavpur University, India

Matrix Mapping on Some Sequence Spaces
Md. Fazlur Rahman and A B M RezaulKarim, Eden College, Dhaka.

**Static and Dynamic Properties of Liquid Metal Mn: An Orbital Free Molecular
Dynamic Study**
Mohammad Riazuddin Molla, Dhaka Universty, Dhaka

Technical Session 3C: Operation Research & Optimization	22 March 2014 9.00-10:45	Room: 6013

Chairperson: Professor Dr. Ainul Islam, University of Dhaka, Bangladesh

Contributory talks:

A Generalization to the Family of Poisson Random Variables and its Application
MianArif Shams Adnan,Department of Statistics
Zahida Sultana Irin,M Shamsuddin
Asif Shams Adnan,Department of Mathematics, Jahangirnagar University, Savar
Department of Business Administration, Uttara University, Dhaka, Bangladesh

**Coordinating a Two-echelon Supply Chain with Price and
Promotional Effort Dependent Demand**
SudarshanBardhan, TarunMaiti, Bibhas C. Giri
Jadavpur University, India

A Dual Simplex Algorithm For Piecewise Linear Fractional Programming Problems
Shifat P. Mithila,Department of Mathematics, Bangladesh University of Engineering and Technology,D
FariaMahnaz,Department of Computerscience, Wayne State Uuniversity, Detroit, MI 48202, USA
 M. Ainul Islam,Department of Mathematics, University of Dhaka, Dhaka-1000, Bangladesh

A Stochastic Inventory Model with Lot Sizing for a Single Product Recovery System
Brojeswar Pal, Jadavpur University, Kolkata - 700032, India

**A Deterministic Inventory Model for Deteriorating Items with Selling Price Dependent Demand a
Three-parameter Weibull Distributed Deterioration via Particle Swarm Optimization**

A. K. Bhunia,Department of Mathematics, The University of Burdwann ,India
Ali Akbar Shaikh,Department of Mathematics, Krishnagar Govt. College, West Bengal, India

Coordination mechanism in dual channel close loop supply chain
Subrata Saha, India

Vendor Buyer Coordination for Optimum Commodity Production and Consumption
Dr. Mohammed Forhad Uddin, BUET, Bangladesh
KaziAnowarHussain, Manik Mondal, Mohammad Khairul Islam, World University

Technical Session 3D: Student Presentation	22 March 2014 9.00-10:45	Room: 5014

Chairperson: Prof. Abdul Hakim Khan, Bangladesh University of Engineering and Technology.

Contributory Talks:

Mass Transfer Flow Past through an Inclined Plate
FarjanaAkter , Bibhuti Roy and Ariful Islam, Khulna University, Bangladesh

**Estimation of Air Pollution by Numerical Simulation
of Advection Diffusion Equation**
Sukriti Kundu and Laek Sazzad Andallah , Jahangirnagar University,Bangladesh

An Analytical Solution Of 1D Navier Stokes Equation
Muhammad Abul Kalam Azad and Laek Sazzad Andallah, Jahangirnagar University,
Bangladesh

A New Approach Of Iteration Method For Solving Some Nonlinear Jerk Equations
B.M. Ikramul Haque and M.S. Alam ,Rajshahi University of Engineering &Technology,
Bangladesh

**Unsteady Flow Bounded By An Oscillatory Porous Plate In
The Presence Of Strong Magnetic Field.**
Sarder Firoz Ahmmed and Arafat Hossen Rased, Khulna University,Khulna

Pulsatile Non-Newtonian Laminar Blood Flow through Arterial Double Stenoses
Mir Golam Rabby, Sumaia Parveen Shupti and Md. Mamun Molla ,North South
University, *Bangladesh*

Physiological Pulsatile Laminar Blood Flow in a Compliant Arterial Aneurysm
Sumaia Parveen Shupti, Mir Golam Rabby and Md. Mamun Molla ,North South
University, Bangladesh

Effect of Conduction on Mixed Convection Flow in a Triangular Cavity

M. A. Rob,Eastern University, Bangladesh.
M. Riyad Hossain, Premier University, Bangladesh
M. S. Hossain, and M. Sahabuddin ,Ahsanullah University of Science and Technology,
Banglades
--------------------------------Tea Break: 10:45-11:00 --------------------------------------

Technical Session 4A: Statistics and Application	22 March 2014 11.00-13.00	Room: 6009

Chairperson: Dr Shipra Banik, Independent University, Bangladesh.

Contributory talks:

**A Simulation Study on Some Confidence Interval Estimators for Estimating the
Population Mean under Both Right and Left Skewed Distributions**

Shipra Banik, Independent University, Bangladesh
B.M. GolamKibria , Florida International University, USA

Test of the Equality of Several Markov Chains
Mian Arif Shams Adnan[1], Jahangirnagar University , Bangladesh
Asif Shams Adnan, Jahangirnagar University ,Bangladesh
 M Shamsud ,Uttara University, Bangladesh

Time Varying Covariates Effect in Cox Proportional Hazards Model: An Analysis of Child Mortality Data of BDHS 2011

Mehenaz Tabassum, Dr. Wasimul Bari,Professor , Dhaka University, Bangladesh.
 K.M ArifulKabir, Independent University, Bangladesh

An Improved Index for Measuring the Degree of Population Aging: An Application to Bangladesh Population

M. TajUddin, Ahmad Kabir and M. Nazrul Islam, Shahjalal University of Science and Technology ,Bangladesh

Multivariate Data Visualization: Correspondence Analysis, Classical and Robust Singular Value Decomposition and Depth based Approach

Nishith Kumar ,Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Bangladesh.
Mohammed Nessar Rajshahi University, Bangladesh

Construction of Life Table and Mathematical Modeling of Some Mortality Measures for Female Population of Bangladesh

Md. Sabbir Hossain[1], Bangladesh Islami University, Bangladesh
Md. Rafiqul Islam, Professor, University of Rajshahi, Bangladesh
M. Korban Ali, Manarat International University, Bangladesh

Prevalence and Socioeconomic Factors Associated with Anemia Among Ever Married Non-pregnant Women in Bangladesh

Md. Nazrul Islam Mondal[1], Md. Shafiur Rahman[1], Md. Rafiqul Islam[1], , Md. Mizanur Rahman[1],Rajshahi University, Bangladesh
Nazrul Hoque , Institute for Demographic and Socioeconomic Research ,The University of Texas at San Antonio, USA

An Alternative Approach of Discrete Probability Distributions

Tareq F Khan,Comilla University, Bangladesh
Mian Arif Shams Adnan, ForhadHossain , Jahnagirnagar University, Bangladesh.

Mathematics Education and its Standard for Engineering Students in Bangladesh

M. A. Alim, Bangladesh University of Engineering and Technology, Bangladesh

Technical Session 4B: Fuzzy Mathematics	22 March 2014 11.00-13.00 PM	Room: 5013

Chairperson: Prof. Dewan Muslim Ali, University of Rajshahi

Invited Talk:
Generalized Regular Fuzzy Locally Closed Sets and Some Generalizations of Fuzzy Locally Closed Continuous Functions
Baby Bhattacharya, Jayasree Chakraborty, NIT, India

Contributory talks:

Eigenvalue and Eigenvector of Intuitionistic Fuzzy Matrices over Distributive Lattice
Monoranjan Bhowmik,VTT College, Vidyasagar University, India

On Some Other Types of Fuzzy Supra Compactness
D. M. Ali , University of Rajshahi, Bangladesh
M.B. Rahman , Khulna University of Engineering & Technology, Bangladesh
Y.M.Molla, Govt P.C. College, Bagerhat

Fuzzy Generalized γ-Closed set
Dipankar De, Ramthakur College, India.

Fuzzy Linear Regression To Estimate Parameters With
Variables As Fuzzy Numbers
M. Shahjalal, M. Jamsher, Primeasia University, Bangladesh
Abeda Sultana, Jahangirnagar University, Bangladesh
Nirmal Kanti Mitra, Bangladesh University of Business and Technology, *Bangladesh.*
 A.F.M. Khodadad Khan, Independent University , Bangladesh
Fuzzy Approach to Stochastic Differential Equations in Mathematical Finance
M. Shahjalal, Primeasia University, Bangladesh.
Abeda Sultana, Jahangirnagar University, Bangladesh
Nirmal Kanti Mitra, Bangladesh University of Business and Technology, *Bangladesh*
A.F.M. Khodadad Khan, Independent University ,Bangladesh

On Transformation Semigroups
AbedaSultana , Jahangirnagar University, Bangladesh.
 M. Shahjalal, Primeasia University, Bangladesh.
Mitra N.K, Bangladesh University of Business and Technology., Bangladesh
A. F. M. Khodadad Khan, Independent University , Bangladesh

Study of Relations on Interval-Valued Intuitionistic Fuzzy Soft Sets
Anjan Mukherjee, Tripura University,India

An Introduction to Fuzzy Planar Graphs
Madhumangal Pal,Vidyasagar University, India

Some Generalized Continuous Functions in Generalized Fuzzy Topological Spaces
Baby Bhattacharya and Jayasree Chakraborty, NIT , India

Nearness - Another Approach To Deal With The Impreciseness And Uncertainty
Dr.R. N. Bhaumik, Tripura University, India

Technical Session 4C: Pure Mathematics	22 March 2014 11.00-13.00	Room:6013

Chairperson: Prof. M Shamsur Rahman, Jahangirnagar University.

Invited Talk:
Reductive Perturbation Method in Nonlinear Dynamics

U.A. Mofiz, BRAC University, Bangladesh

Contributory Talks:

Wavelet Galerkin Method for Solving KdV Equation
Subrata Bhowmik[1], Prasenjit Bal, Tripura University, India
B.N.Mandal, ISI, India

A Linear Model of Age Structured Population Projection
Masuma Parvin,Daffodil International University, Bangladesh
Ronobir Sarker,Bangladesh University of Business and Technology, Banglades
Layek Sazzad Andallah,Jahangirnagar University, *Bangladesh*

Asymptotic Stabilityof Functional Equations by Fixed Point Theorems
Muhammad N. Islam,University of Dayton, USA.

Wavelet Galerkin Method for Solving KdV Equation
Subrata Bhowmik, Tripura University, Suryamaninagar, India
Prasenjit Bal, Tripura University, India
B.N.Mandal, ISI, India

Exact and Solitary Wave Solutions for the Tzitzeica-Dodd-Bulloughand the Modified Kdv-Zakharov-KuznetsovEquations using the Modified Simple Equation Method
Kamruzzaman Khan, Md. Nur Alam, Pabna University of Science and Technology, Bangladesh
M. Ali Akbar, University of Rajshahi, Bangladesh

Technical Session 4D: Student Presentation	22 March 2014 11.00-13.00	Room: 5014

Chairperson: Prof. Abu Naim Sheikh, Dhaka University of Engineering and Technology.

Contributory Talks:

An Application of Set covering Problem for Installing Minimum Number of Police Check Posts: A Case Study for Shahbag Police Station Area
Sajal Chakroborty, Md. Rajib Arefin, University of Dhaka, Bangladesh

Viscous Dissipation and Heat Absorption effect on Natural Convection Flow with Uniform Surface Temperature along a Vertical Wavy Surface

Nazma Parveen,Bangladesh University of Engineering and Technology, *Bangladesh*
Sujon Nath, Bangladesh University of Engineering and Technology, *Bangladesh*

Passive Strategies to Control the Flow Around the Ahmed Body
Abul Kalam Azad, Mohammad A. Hossain, Khulna University of Engineering &
Technology,Bangladesh
A.K.M.S. Islam, Islamic University of Technology,Bangladesh

Various Integral Representations of Gamma Function
Mian Arif Shams Adnan, Humayun Kiser, Comilla University, Comilla;
Zahida Sultana Irin,Uttara University, *Bangladesh*
SilveaIrin Sharna, SilveyShamsi, Jahangirnagar University, *Bangladesh*
M Shamsuddin, Uttara University, Bangladesh

The Transportation Problem under Probability and Fuzzy Uncertainties.
UtpalenduDev, Jahangirnagar University, *Bangladesh*
Abeda Sultana, Jahangirnagar University, *Bangladesh*
Nirmal Kanti Mitra, Bangladesh University of Business & Technology, *Bangladesh*

Chaotic Spatiotemporal Patterns of Cardiac Cell Dynamics in Excitable Media
M. Osman Gani, Jahangirnagar University, *Bangladesh*
Toshiyuki Ogawa, Meiji University, Japan
Unsteady MHD Couette Flow of Viscous Incompressible Fluid with Hall Current and Suction
Afroja Parvin, Md. Farid Uddin Mehedi and Md. Mahmud Alam,Khulna University,
Bangladesh

Isothermal Fluid Flow through a Curved Duct with Rectangular Cross Section
Md. Afikuzzaman and Md. Mahmud Alam, Mathematics Discipline Science, Khulna
University, Bangladesh

MHD free convection and mass transfer fluid flow through a vertical plate in the presence of inclined magnetic field with hall and ion-slip current in a rotating system
Rina Perven and Md. Mahmud Alam, Mathematics Discipline, Khulna University,
Bangladesh

--------------------------------Launch Break : 13:00-14:00 -------------------------------

Technical Session 5A: Applied Mathematics	22 March 2014 14.00-15:45 PM	Room: 6009

Chairperson: TBA

Invited Talk:
The Tower Of Hanoi Problem And Its Variants: A Review
A.A.K. Majumdar, APU, Japan

Contributory talks:

On the Application of Schreier - Structure to Solve Rubik's Cube
Sheik Ahmed Ullah, BRAC University , Bangladesh.
SajedaBanu,University of Dhaka , Bangladesh.

Coding Theory On Fibonacci N-Step Numbers
ManjusriBasu, University Of Kalyani, India

Generalizations of Characterizations of Eulerian Graphs to Binary Matroids
Dr. M. M. Shikare, University of Pune, India

Fast and Simple 2D Shape Retrieval Using Discrete Shock Graph
SolimaKhanam, Konkuk University, Korea
Seok-Woo Jang, Anyang University, Korea

Computation of a Minimum Average Distance Tree on Circular-arc Graphs
Biswanath Jana, Vidyasagar University, India

Codes from Cyclic Group of Order Four
M. Asifuzzaman,Grameenphone Limited, Bangladesh
Kamrul Hasan,Bangladesh Research and Education Network (BdREN), Bangladesh
Partha Pratim Dey, North South University, Bangladesh

Numerical Solutions Of Steady Navier-Stokes Equations Using Finite Element Method With The Implementation Of Newton's Algorithm In Freefem
Khalifa Mohammad Helal, Comilla University, Comilla

Analysis the Optimality in Rectangular Distance Measure for the Maximin LHDs Measured in Euclidean Distance Measure Obtained by the ILS Approach
A.R.M. J. U. Jamali and M. Isahaque, Khulna University of Engineering & Technology, Khulna
 A. Grosso, Department of Computer Science, University of Turin, Turin, Italy
distance measure

Technical Session 5B: Applied Mathematics	22 March 2014 14.00-15:45	Room: 5013

Chairperson: Prof. Abdur Rob, Jahangirnagar University, Bangladesh

Contributory Talks:

Natural Convection Heat Transfer Enhancement ofCu-water Nanofluids in a Square Cavity Containing Cold Circular Block
F. Koabra, Eden Mohila College, Bangladesh.
M. A. Alim,N. Quddus,Bangladesh University of
Engineering and Technology, Bangladesh

Performance Analysis of Solar Adsorption Cooling System – Effect of Position of Heat Storage Tank
K. C. Amanul Alam, East-West University, Bangladesh
Rifat A. Rouf , Independent university, Bangladesh
K. M. Ariful Kabir, Independent university, Bangladesh
M. A. Hakim Khan, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

Heat Transfer Augmentation in a lid-driven Triangular Enclosure Having a Heater Utilizing Al_2O_3-water Nanofluids
M. M. Billah , Ahsanullah University of Engineering and Technology, Bangladesh.
M. M. Rahman, Bangladesh University of Engineering and Technology, Bangladesh
Uddin M. Sharif, Jahangirnagar University, , Bangladesh
A. R. Khan, Jahangirnagar University, Bangladesh

An Investigation on [5,3,3] Quternary Codes
Kamrul Hasan,Bangladesh Research and Education Network (BdREN), Bangladesh
M. Asifuzzaman, Grameenphone Limited, Bangladesh
Partha Pratim Dey, North South University, Bangladesh

The Characterization of Crisis, Spatial Intermittency and Spatio-temporal Intermittency in Coupled Sine Circle Maps
Alaka Das, Jadavpur University, India
Neelima Gupte , Indian Institute of Technology, India

The kinematics of Crude death rate in assured lives in the demography of Bangladesh
Mahfuz Ibn Mannan, University of Information Technology & Sciences, Bangladesh
Md. Shahidur Rahman , Prime Islami Life Insurance Limited, Bangladesh
Mir Shariful Islam, University of Information Technology & Sciences, Bangladesh

Continuous Spin Representation by Contraction of Conformal Algebra
Abu M Khan ,North South University, Bangladesh

On Ranking of Science Fair Projects
Muhammad Nurul Islam,North South University, Bangladesh

Integrated Mathematics Curriculum Design In An Experimental Interdisciplinary Institute: Challenges And Lessons Learned
Dr. Aminul Huq , Center for Learning Innovation ,University of Minnesota Rochester, USA.

Technical Session 5C: Reserve /Others	22 March 2014 14.00-15:45	Room: 6013

Chairperson : TBA

Contributory Talks: *TBA*

Session 5D: Student Presentation	22 March 2014 14.00-15:45	Room; 5014

Chairperson : Prof. Mohammed Ashraful Islam, University of Chittagong.

Contributory Talk:

Traditional Trigonometric Application on Number Theory and Fermat's Last Theorem
Md. Razib Talukder, Khulna University, Bangladesh

A Numerical Study of Integral Equation by Using CAS Wavelet Method
M. M. Rahman , Islamic University, Bangladesh
Md. Shamim Hossain ,Islamic University, Bangladesh
M. S. Islam , Bangabandhu Sheikh Mujibur Rahman Science &Technology University, Bangladesh

Twin Prime Number Analysis
A. B. M Nadim , East West University, Bangladesh.

L-Shaped Drawings of Series-Parallel Graphs
Md. Iqbal Hossain, Shaheena Sultana, Aftab Hussain, Nazmun Nessa Moon and Md. Saidur Rahman, BUET

Numerical Solution of Viscoelastic Fluid Flow through a Vertical Flat Plate with Diffusion-thermo and Thermal-diffusion
Sheikh Imamul Hossain, Khulna University, Bangladesh

New Theorems of Triangle
Mohammad Mizanur Rahman, Bangladesh

Large Eddy Simulation of Turbulent Channel Flow at Re_τ = 590
M. Saiful Islam Mallik , Shahjalal University of Science & Technology , Bangladesh
 M. Ashraf Uddin, Ahsanullah University of Science & Technology, Bangladesh

Finite Difference Method for a Second Order Traffic Flow Model
Tauhedul Azam and L. S. Andallah, Jahangirnagar University, Bangladesh

Effects of Hall current and viscous dissipation on MHD free convection fluid flow with rotation
Abdul Quader and Md. Mahmud Alam, Mathematics Discipline, Khulna University, Khulna-9208, Bangladesh

An improved formula for evaluating definite integrals
M. Kamrul Hasan, M. Ashraful Huq, M. Habibur Rahman and M. Shamsul Alam, RUET, Bangladesh

----------------------------------Tea Break: 15:45--16:00--------------------------

CLOSING SESSION	22 March 2014 16.00-17:15	Room: 5002

Chairperson : Prof. M. Anwer, Organizing Chair, Independent University,   Bangladesh

Guests of Honor:
Dr. Ali Shihab Sabbir,   Dean, School of Engineering and Computer Science.
Independent University, Bangladesh
Prof. M. Anwar Hossain, President, Bangladesh Mathematical Society

Prize Giving to Top Three Bangladeshi Student Presenters

Concluding Remarks

END OF THE CONFERENCE

17:30   BUS TO DHAKA UNIVERSITY

20:00   Conference Dinner (By Invitation only) at TSC, Dhaka University
(Courtesy: Dhaka University)