

National Conference on Mathematics and Its Applications (NCMA-2022)

PROGRAMS AND SCHEDULE

Program: Day-1

Jestha 28, 2079 (June 11, 2022) [Saturday]

9:00 am onward **Conference Registration**

10:30 am - 11:30 am **Lunch**

11:30 am - 12:30 pm **Inaugural Session**

12:30 pm - 1:15 pm **Scientific Session-1**

Chair Person: **Prof. Dr. Bhadra Man Tuladhar**

Technical Support: Dr. Ganga Ram Phaijoo

12:30-12:50	Ganga Ram Phaijoo <i>Assessing Impact of Control Measures in Dengue Disease Transmission Dynamics</i>
12:55-1:15	Hari Nandan Nath <i>Arc Capacity for Facilities in Network Flow Modeling</i>

1:15 pm - 1:35 pm **Group Photo Session**

1:35 pm - 2:15 pm **Tea Break**

2:15 pm - 4:00 pm **Scientific Session-2** **Scientific Session-3**

Scientific Session-2

(2:15 pm-3:50 pm: 5 Presentations)

Chair Person: **Prof. Dr. Chet Raj Bhatta**

Technical Support: Mr. Tek Bahadur Budhathoki

2:15-2:35	Dipendra Regmi <i>Global Regularity for the 2d Magnetohydrodynamic (MHD) Equations with Partial Dissipation and Diffusion</i>
2:40-2:55	Khagendra Adhikari , Anjana Pokharel, Ramesh Gautam, Kedar Nath Uprety, Naveen K. Vaidya <i>Modeling the Risk of Transmission and Hospitalization During the Covid-19 Pandemic in Nepal</i>
3:00-3:10	Pawan Shrestha , Durga Jang KC, Ramjee Sharma <i>KdV Type Equations and Vanishing Viscosity</i>
3:15-3:25	Prakriti Dhakal <i>ICT in Teaching-Learning Mathematics</i>
3:30-3:40	Utsav Darlami , Asim Mahat, Unique Karki, Paras Mani Timilsina, Samir Shrestha <i>Artificial Neural Network-Genetic Algorithm for Optimization of Multivariate Function: An Application to Lactic Acid Production</i>

Scientific Session-3

(2:15 pm-3:50 pm: 5 Presentations)

Chair Person: **Dr. Kedar Nepal**

Technical Support: Dr. Hari Nandan Nath

2:15-2:35	Bhadra Man Tuladhar <i>Knights-and-Knaves Puzzle</i>
2:40-2:55	KP Ghimire <i>Grade 12 Students' Anxiety Towards Mathematics</i>
3:00-3:10	Raj Kumar Pradhan , Samir Shrestha, Dil Bahadur Gurung <i>A Mathematical Study of Car-Following Model Under Different Traffic Facilities and Road Condition</i>
3:15-3:25	Harish Chandra Bhandari , Bishesh Khanal, Kanhaiya Jha <i>Temporal Visibility Graphs for Electroencephalogram Signals Classification</i>
3:30-3:40	Prakash Bayalkoti , Ganga Ram Phaijoo, Jeevan Kafle <i>Mathematical Study of Effect of Temperature on Transmission Dynamics of Dengue Disease</i>

3:40 pm - 4:10 pm

Tea Break

4:10 pm - 5:50 pm

Scientific Session-4

Scientific Session-5

Scientific Session-4

(4:20 pm-5:55 pm: 7 Presentations)

Chair Person: **Dr. Dipendra Regmi**

Technical Support: Mr. Tek Bahadur Budhathoki

4:10-4:30	Jivandhar Jnawali , Buddhi Prasad Sapkota <i>New Variants of Newton's Methods for Solving Nonlinear Equations</i>
4:35-4:50	Kabita Luitel , Dil Bahadur Gurung Harihar Khanal, Kedar Nath Uprety <i>Axisymmetric Bioheat Transfer Models in Clothing System for Sweating and Metabolic Effect During Physical Exercise</i>
4:55-5:10	Gauri Bhujju , G. R. Phaijoo and D. B. Gurung <i>Mathematical Analysis of Covid-19 in Nepal</i>
5:15-5:25	Parshu Ram Chaudhary , Jaya Bishnu Pradhan, Dinesh Panthi <i>Ethnomathematics: Geometry and Architecture of the Tharu Traditional Houses at Chakhoura Museum</i>
5:30-5:40	Kharika Devi Parajuli <i>Mathematics Connection in Weaving Patterns of Bamboo Artifact, Chalno: Experiences on Secondary Level Students of a Private School in Nepal</i>
5:45-5:55	Nirmal Gurung <i>Bounded Orbit Set of Holomorphic Semigroups</i>
5:55-6:05	Ishwari Prasad Banjade <i>Error Deduction Model a Rational Model for Measuring Human Development</i>

Scientific Session-5

(4:10 pm-5:55 pm: 7 Presentations)

Chair Person: **Dr. Durga Jang KC**

Technical Support: Dr. Hari Nandan Nath

4:10-4:30	Puskar R. Pokhrel <i>A Coupled and Multiscale Modeling of Mixture Mass Flows</i>
4:35-4:50	Ramesh Gautam , Anjana Pokharel, Khagendra Adhikari, Kedar Nath Uprety , Naveen K. Vaidya <i>Bifurcation Analysis of Malaria Transmission Model: Role of Cross-Border Mobility in Its Elimination</i>
4:55-5:05	Sharmila Shrestha , Dil Bahadur Gurung , Gokul K.C. <i>Study of Breast Tissue Temperature at Different Ages of Tumor</i>
5:10-5:25	Hem Raj Pandey , Ganga Ram Phaijoo and Dil Bahadur Gurung <i>Fractional - Order Derivative Model of Dengue Disease Transmission Dynamics in Nepal</i>
5:30-5:40	Jhavi Lal Ghimire , Naryan Prasad Pahari <i>On Certain Type of Difference Sequence Spaces Defined by φ-Function</i>
5:45-5:55	Indra Mani Shrestha , Bal Chandra Luitel, Binod Prasad Pant, Niroj Dahal, Netra Kumar Manandhar <i>Innovative Pedagogies for Meaningful Mathematics Learning: Sharing Our Lived Experiences</i>
5:55-6:05	Gaurab Chand , Durga Prasad Khanal, Urmila Pyakurel <i>Integrated Network Optimization Model of Exclusive Bus Lane</i>

Program: Day-2

Jestha 29, 2079 (June 12, 2022) [Monday]

8:00 am - 9:45 am

Scientific Session-6

Scientific Session-7

Scientific Session-6

(8:00 am-9:45 am: 7 Presentations)

Chair Person: **Prof. Dr. Jivandhar Jnawali**

Technical Support: Mr. Bishnu Prasad Bhandari

8:00-8:20	Deepak Basyal , Der-Ching Yang <i>Are mathematics Textbooks in Nepal Serving Their Purpose?</i>
8:25-8:40	Bekha Ratna Dangol , Chet Nath Tiwari, Jeevan Kafle, Parameshwari Kattel <i>Influence of Particle Concentration of Release Mass on Dynamics of Landslide-Generated Tsunamis</i>
8:45-9:00	Tara Paudel , Bal Chandra Luitel <i>Transformative Learning and Identity Change</i>
9:05-9:15	Bishnu Prasad Chapagai , Phanindra Prasad Bhandari, Shree Ram Khadka <i>Maximum Network Flow Algorithms: A Comparative Study</i>
9:20-9:30	Shraddha Niraula , Manoj Kumar Raut, Suman Kumar Jha, Raju Ram Thapa <i>Redefinition of Fuzzy Linear Space</i>
9:35-9:45	Arjun Kumar Gaire , Yogendra Bahadur Gurung <i>Rayleigh Generated Log-Logistic Distribution, Properties, and Applications</i>

Scientific Session-7

(8:00 am-9:45 am: 6 Presentations)

Chair Person: **Prof. Dr. Ajaya Singh**

Technical Support: Mr. Hem Raj Pandey

8:00-8:20	Chet Raj Bhatta <i>C[a, b] as the Backbone of Evolution of Functional Analysis</i>
8:25-8:40	Bhuwan Prasad Ojha <i>A Relation Between Pythagorean and Birkhoff Orthogonality in Terms of Bounded Operators</i>
8:45-9:00	Ramesh Chandra Timsina , Kedar Nath Uprety, Harihar Khanal <i>A Mathematical Model on Transport and Growth of Microorganisms in Unsaturated Porous Medium (Soil)</i>
9:05-9:15	Harsh Bahadur Chand , Bal Chandra Luitel, Binod Prasad Pant <i>Exploring Meanings of a Limit of a Function Constructed by Undergraduate Students</i>
9:20-9:30	Anju Kafle , Indra Bahadur Bhandari, Jeevan Kafle <i>Numerical Analysis of Quantum Tunneling</i>
9:35-9:55	Rajendra Dahal <i>Recent Developments in Discrete Fractional Calculus</i>

9:45 am - 10:05 am

Tea Break

10:05 am - 11:55 am

Scientific Session-8

Scientific Session-9

Scientific Session-8

(10:05 am-11:55 am: 6 Presentations)

Chair Person: **Prof. Dr. Prakash Muni Bajracharya**

Technical Support: Mr. Bishnu Prasad Bhandari

10:05-10:25	Ajaya Singh <i>Identification of Algebraic Number</i>
10:30-10:45	Anjana Pokharel , Ramesh Gautam, Khagendra Adhikari, Kedar Nath Uprety, Naveen K. Vaidya <i>An In-Host Model of Measles Virus Infection</i>
10:50-11:05	Binod Prasad Pant , Bal Chandra Luitel, Indra Mani Shrestha, Niroj Dahal, Netra Kumar Manandhar <i>Teaching Mathematics for Social Justices</i>
11:10-11:25	Niroj Dahal , Bal Chandra Luitel, and Binod Prasad Pant <i>STEAM Skills in Mathematics: Examples from the Classrooms</i>
11:30-11:40	Bishwa Adhikari <i>A Comprehensive Study of Multicriteria Optimization in Radiotherapy</i>
11:45-12:05	Pitamber Tiwari , Chet Raj Bhatta <i>Hermite-Hadamard Type Integral Inequalities On Generalized Geometric Convex Function and Their Quantum Estimates</i>

Scientific Session-9

(10:05 am-11:55 am: 6 Presentations)

Chair Person: **Prof. Dr. Chet Raj Bhatta**

Technical Support: Mr. Hem Raj Pandey

10:05-10:25	Kedar Nepal , Deepak Basyal, Krishna Pokharel <i>Higher Order Thinking Skills: An Investigation of High School Mathematics Board Exams in Nepal</i>
10:30-10:45	R.N. Pandit , G. Adhikari, M. K. Raut, <i>A Study on Orthomodular Lattices for Compact Topological Spaces</i>
10:50-11:05	Umesh Rajopadhyaya <i>Common Fixed Point Theorem for Three Pair of Mapping in Semi-Metric Space Using Φ-Contraction</i>
11:10-11:25	Dev Chandra Shrestha , Saraswati Acharya, Dil Bahadur Gurung <i>Analysis of the Metabolic Rate and Skin Layers Thickness for Human Thermoregulation in a Two-Dimensional FEM Model for Adults and Ageing</i>
11:30-11:40	Chudamani Pokharel <i>Corona Theorem in Bounded Analytic Function on the Unit Disc</i>
11:45-11:55	Shankar Pariyar , Jeevan Kafle <i>The Fractional Wave Equation for a Vibrating String</i>

11:55 am - 12:55 pm

Lunch

1:00 pm - 6:00 pm

Excursion to Mai Pokhari

6:00 pm - 8:00 pm

Conference Dinner

Program: Day-3

Jestha 30, 2079 (June 13, 2022) [Monday]

8:00 am - 9:45 am

Scientific Session-10

Scientific Session-11

Scientific Session-10

(8:00 am-9:45 am: 6 Presentations)

Chair Person: **Dr. Manoj Kumar Raut**

Technical Support: Dr. Phanindra Prasad Bhandari

8:00-8:20	Dinesh Panthi <i>Dislocated Metric Space and Some Fixed-Point Theorems</i>
8:25-8:40	Chet Nath Tiwari , Bekha Ratna Dangol, Parameshwari Kattel, Jeevan Kafle <i>Modeling Multiphase Debris Floods Down a Meandering Channel</i>
8:45-9:00	Raghu Bir Bhatta <i>Modeling of Transmission Dynamics of Communicable Diseases with Yoga</i>
9:05-9:15	Gyan Prasad Paudel , Narayan Prasad Pahari and Sanjeev Kumar <i>Application of Fuzzy Through Bellmen – Zadeh Maximum Method</i>
9:20-9:30	Samundra Timilsina Tripathee , Pushpa Nidhi Gautam, Jeevan Kafle <i>Two-Layered Blood Flow with Mild Stenosis</i>
9:35-9:45	Nowraj Tiwari <i>Modelling Hub Location Problems in Public Transportation</i>

Scientific Session-11

(8:00 am-9:45 am: 6 Presentations)

Chair Person: **Dr. Puskar R. Pokhrel**

Technical Support: Dr. Ganga Ram Phaijoo

8:00-8:20	Sushil Chandra Karna <i>Mechanics of Love</i>
8:25-8:40	Thaneshor Bhandari , Kanhaiya Jha, K.B. Manandhar <i>Application of Fixed Point in Ordinary Non-Linear Differential Equations</i>
8:45-9:00	Bishnu Hari Subedi <i>Physical Reality and Essence of Imaginary Numbers</i>
9:05-9:15	Basanta Raj Lamichhane <i>SEAM Education as/for Transformative Mathematics Learning</i>
9:20-9:30	Susmita Pathak <i>Teaching Mathematics Education to Nepali Learners in Blended Learning Approach</i>
9:35-9:45	Jnaneshwar Chalise <i>Data Augmentation with Mobius Transformation</i>

09:45 am - 10:05 am

Tea Break

10:05 am - 11:55 am

Scientific Session-12 Scientific Session-13

Scientific Session-12

(10:05 am-11:55 am: 6 Presentations)

Chair Person: **Prof. Dr. Raju Ram Thapa**

Technical Support: Dr. Phanindra Prasad Bhandari

10:05-10:25	K.B. Manandhar <i>Fixed Point Theory and Compatible Mapping of Type (K)</i>
10:30-10:45	Kamalesh Kumar Lal Karn <i>Set Theoretic Operations on Fuzzy Sets</i>
10:50-11:05	Prem Bahadur Chand <i>Optimal Methods for Solving Nonlinear Equations and Their Basins of Attraction</i>
11:10-11:25	Bal Bahadur Tamang , Ajaya Singh, Manoj Gyawali <i>Some Techniques for Solvability of Quadratic Diophantine Equations</i>
11:30-11:40	Prem Gurung <i>FEM Model for Vertically Atmospheric Pollutant Distribution with Dry Deposition and Gravitational Settling Velocity Effects</i>
11:45-11:55	Suneal Duwadi <i>A Traffic Flow Model: Impact of Motorbikes for Congestion Minimization</i>

Scientific Session-13

(10:05 am-11:55 am: 6 Presentations)

Chair Person: **Dr. Sushil Chandra Karn**

Technical Support: Dr. Ganga Ram Phaijoo

10:05-10:20	Phanindra Prasad Bhandari , Shree Ram Khadka <i>Lexicographically Maximum Flows Under an Arc Interdiction</i>
10:25-10:40	Bharat Raj Wagle , Ram Prasad Ghimire <i>Closed Queueing Network Analysis of Vehicle Sharing in a City</i>
10:45-11:55	Pushpa Nidhi Gautam , Jeevan Kafle, Ganga Ram Phaijoo and Parameshwari Kattel <i>Modeling Two-Phase Blood Flow Dynamics Through Artery Along with Stenosis</i>
11:00-11:10	Jayadev Nath <i>A Study on Dyadic Operators</i>
11:15-11:25	Prem Kumari Dhakal <i>Expectations of Undergraduate Students from Teachers in Learning Mathematics: A Study in Mid-West University</i>
11:30-11:40	Badri Tamang , Manoj Kumar Raut, Suman Kumar Jha, Raju Ram Thapa <i>A Study on Relations Between Completeness and Compactness in Finite-Dimensional Fuzzy Normed Linear Space</i>
11:45-11:55	Dhan Raj Char , Jeevan Kafle <i>Reaction Diffusion System and Pattern Formation</i>

11:55 am - 12:55 pm

Lunch

1:00 pm - 2:00 pm

Closing Session

2:00 pm - onwards

Tea/Departure