Summary on Responsibilities and Research Activities
Professor Dr. Tanka Nath Dhamala
Central Department of Mathematics, IOST, Tribhuvan University

Tanka Nath Dhamala received his Master's degree in pure mathematics with Chancellor Gold Medal from Tribhuvan University, Nepal in 1989 and M.Sc. nat. in Industrial Mathematics from University of Kaiserslautern, Germany in 1996. He completed his PhD in the field of Optimization from University of Magdeburg, Germany under the supervision of Prof. Heidemarie Braesel in 2002. He is a Post-Doc fellow in Optimization from Memorial University of Newfoundland, Canada under the supervision of Prof. Wieslaw Kubiak in 2004-2005.

Dr. Dhamala has visited research institutes DIMACS (Center for Discrete Mathematics and Theoretical Computer Science) and RUTCOR (Rutgers Center for Operations Research) in the USA under the invitation of Prof. Fred S. Roberts in 2003. He also visited the MDMC (Multi Dimensional Mobile Communication) Lab in Chonbuk National University, South Korea as a visiting professor invited by Prof. Moon Ho Lee. He visited Japan as an education tour earlier in 1989 and visited France, India, Sri-Lanka, Philippines, China, Luxembourg, Malaysia and Myanmar for various scientific meetings. He has visited most of the places of Germany, mainly the University of Magdeburg, University of Kaiserslautern and TU Bergakademie Freiberg as his scientific homes.

Prof. Dhamala received TWAS (Thirld World Academy of Sciences) Award from Nepal Academy of Science and Technology in 2003 and NAST NABIL Science and Technology Award in 2016.

Currently Prof. Dhamala is working as a full professor, in Central Department of Mathematics, Tribhuvan University and leading the research group of Optimization, OR, Graph Theory, Scheduling Theory and Algorithms. His is also the former Head (2020-2024) of this department. He has supervised a number of PhD, MPhil and Master's degree students. He also hold the position of the Head at Central Department of Computer Science and Technology, Tribhuvan University in 2007-2013. He had coordinated the MPhil Program in Mathematics at Central Department of Mathematics, Tribhuvan University since 2016 to 2019.

Prof. Dhamala is a Georg Forster Research Fellow for Experienced Researcher under the Alexander von Humboldt Foundation sponsorship in Kaiserslautern in Germany with Prof. Horst W. Hamacher in between 2012-2014. He is a former fellow of DAAD (German Academic Exchange Service, Germany) and NSERC (Natural Sciences and Engineering Research Council, Canada) and is currently the DAAD Research Ambassador from 2015. As German academic collaboration, Prof. Dhamala coordinated the DAAD partnership program with Prof. Hamacher at University of Kaiserslautern (2016-2019) and also for Alexander von Humboldt Foundation Research Group Linkage Program with Prof. Stephan Dempe at TU Bergakademie Freiberg (2016-2018) in Optimization and Graph Theory established in Central Department of Mathematics. He was the Steering Committee Member of Silkroad Mathematics Center, Beijing, China.

Prof. Dhamala has published a number of papers in the journals of repute, organized national and international conferences and workshops, and has been the editors, chief-in-editors (formerly: International Journal of Operations Research, Nepal, Journal of Nepal Mathematical Society, and The Nepali Mathematical Sciences Report) and reviewers of the scientific journals including AMS Review, zbMATH, Journal of Advanced Transportation, Hindawi, ANNOR and Springer Nature. He delivered his research outcome at many international scientific meetings as a plenary, keynote, invited and contributory speaker.

He has been academically affiliated in many academic organizations in Nepal and abroad like AMS (American Mathematical Society), NEGAAS (Nepal German Academic Association; President for 2020-2022), GAAN (German Alumnai Association of Nepal), ORSN (Operational Research Society of Nepal), MCDM (International Society of Multi Criteria Decision Making), Humboldt Club Nepal, NAST and Nerpal Mathematical Society (President for 2015-2018; Secretary for 2006-2009). He is also serving as a member of different research and subject committees in Nepalese universities.

Prof. Dhamala also served Science and Technology Cluster, University Grants Commission, Nepal (Member 2019-2021); Mathematics Subject Committee, HSEB, Government of Nepal (Chairman 2015-2016); Nepal Information Technology Council (Member 2011- 2013); Mathematical Sciences Scientific Sub-Committee, NAST (Member 2006-2009, 2016-2018). He also served as a member of Academic Council, Faculty Board and Research Committee at TU and subject committee at different universities in Nepal.

Mathematical modeling and solving the real-life problems using optimization, simulation and heuristics are the main concern of Prof. Dhamala. The most focused areas of his research include shop scheduling theory and algorithms, graph algorithms, JIT sequencing, vehicle routine, network optimization, facility location and logistic support problems. The current research area concerns on solving emergency evacuation planning optimization problems. Both auto-based and transit based models and contraflow problems are focus of his research group. Including all disaster scenarios over the world, one of the potential areas for their implementation would be Kathmandu, Nepal. The models are also applicable in everyday rush-hour traffic. A collaborative research is his vision.

Prof. Dr. Tanka Nath Dhamala
Compact CV with Publications

- Personal Information

  Date and place of birth: June 17, 1964 A.D. (1.3.2021 B.S.), Okhaldhunga, Nepal
  Telephone No.: (00977) 9841152490 (mobile); (00977)(1) 4155160 (home)
  Emails: tanka.nath.dhamala@gmail.com, tanka.dhamala@cdmath.tu.edu.np
  ORCID ID (0000-0003-3390-9707)
  Homepage: **http://dhamalatn.cdmathtu.edu.np/**

- **Fellowships, Scholarships, Prizes and Medals:** Chancellor Gold Medal (TU Topper 1989), Alexander von Humboldt Foundation 2012-. . . , DAAD Research Ambassador 2014-2020, NSERC Research Fellowship of Canada 2004-2005, Third World Academy of Sciences Award 2003, NABIL S & T Award 2016, Mahendra Bidya-Bhushan Medal Class A 2003 and Class B 1989, Education Service Prize of Nepal Govt. 2008.
- **Educational Qualifications:** Post-Doc (Canada 2004-2005), PhD (Germany 2002), M.Sc & M.A. Mathematics.
- **Experiences and Positions:** Former Heads - Central Department of Mathematics (2020-2024) & Central Department of CSIT (2007-2013), Visiting Professor at Chonbuk National University (Korea 2008).
- **Int'l Research Collaborations/Projects as Principal Investigator:** 1. DAAD partnership between TU, Germany, Philippines 2016-2019 & 2. Alexander von Humboldt Research Group Linkage between TU and Germany 2016-2018.
- **Academic/Research and International Visits:** Germany (KIT Karlsruhe, Berlin, Kaiserslautern, Freiberg, Magdeburg, Chemnitz, Hannover, Goettingen, Freiburg), USA, Canada, different universities of India and China, Myanmar, Malaysia, Luxembourg, Sri-Lanka, Koren, France, Japan.
- Students Supervision/Evaluation (PhD, MPhil, Master): 84
- Academic Membership (Journal, Organization, University and Govt.)
  1. Former President of Nepal Mathematical Society
  2. Former President Nepal- German Academic Association
  3. Academic Accountability: 27+
  4. Journals: 28+
  5. Society membership: 15+
- Seminar/Workshop/Conference (Organizer/Advisor/Member): total 33+
- Seminar/Workshop/Conference (Presentation and Participation): total 83+
- Scientific International Webinar (Presented/Participated): total 35+
- Co-presentations at Physical/Virtual Conferences: 75+
- Scientific books with doi, ISBN and ISSN numbers: 3
- Articles Published in Refereed Journals: 75
- General Articles, Conference Proceedings and Abstracts: 50
- Internal Reports: 20+
- Papers in Submission/Work Progress: currently running **10-14**
- Google citations 1371; h-index 20; i10-index:37
- Research gate citations 1104; h-index 17

Brief Curriculum Vitae
Professor Tanka Nath Dhamala

- Personal Information

  Date and place of birth: June 17, 1964 A.D. (1.3.2021 B.S.), Okhaldhunga, Nepal.

  Private address: Mahadevsthan, Koteshwor-32, House No. 115/90; P.O.Box. 13143, Kathmandu, Nepal.

  Office address: Central Department Mathematics (CDM), Institute of Science and Technology (IOST), Tribhuvan University (TU), Kathmandu, Nepal.

  Telephone No.: (00977)(1) 4155160 (home); (00977) 9841152490 (mobile)

  Family: Mrs. Bhuwani Dhamala (wife), Er. Pushpa Dhamala and Dr. Er. Jwala Dhamala (daughters).

  Parents (late): Rabilal Dhamala (father), Harkamaya Dhamala (mother).

  Emails: tanka.nath.dhamala@gmail.com, tanka.dhamala@cdmath.tu.edu.np

  ORCID ID (0000-0003-3390-9707)

- Fellowships, Scholarships, Prizes and Medals

  1. Alexander von Humboldt Foundation Research Fellow (Revisit: 1 June - 31 Aug 2023; Research Group Linkage Program: 1 July 2016 - 31 Dec 2018; Return Fellowship: 1 Jan - 30 Dec 2015; Georg Forster Research Fellowship for Experienced Researcher 18-months: 1 April - 30 Sep 2012; 1 Jan - 30 June 2013; 1 July - 30 Dec 2014).
  2. DAAD Fellow (2-13 April 2023; 2-28 June 2019, 1-30 June 2017; 15 Oct - 14 Nov 2016; 1 May - 14 June 2010; 19 Sep - 2 Oct 2010; 1 Sep - 30 Nov 2006; 1-20 June 2006; 1 Aug 1999 - 24 May 2002; 1 Aug 1994 - 30 Sep 1996).
  3. NABIL Science and Technology Award of Nepal Academy of Science and Technology (NAST) 2016.
  4. DAAD Research Ambassador, November 2014 - 2020.
  5. Government of Nepal, Education Service Prize 2008.
  6. NSERC Research Fellowship of Canada, 21 Sep 2004 - 21 July 2005.
  7. TWAS - Third World Academy of Sciences Award Winner 2003.
  8. Mahendra Bidya-Bhushan Medal Class A 2003.
  9. Chancellor Gold Medal (TU Topper, 1989).
  10. Mahendra Bidya-Bhushan Medal Class B (CDM-TU-Nepal, Topper, 1989).
  11. Best student Awards/Scholarships at High School, Colleges and TU (1970-1989).

- Educational Qualifications

  1. Post-Doc, Memorial University of Newfoundland, FBA, Canada, 21 Sep 2004 - 21 July 2005.
  2. Dr.rer.nat. (PhD, Discrete Optimization, 1 Oct 1999 - 24 May 2002), University of Magdeburg, Faculty of Mathematics, Institute of Algebra and Geometry (UMD-FMA-IAG-Germany).
  3. M.Sc.nat. (Industrial Mathematics, 1 Oct 1994-30 Sep 1996), University of Kaiserslautern (UKL-FMA, Germany).
  4. Master's Degree in Mathematics (with distinction, 13 Nov 1987 - 20 Nov 1989), CDM-TU-Nepal.
  5. Bachelor's Degree (Mathematics, 1984-1986), Tri-Chandra Multiple Campus, TU-Nepal.
  6. Proficiency Certificate Level (1982-1984), Patan Multiple Campus, TU-Nepal.
  7. School Leaving Certificate (1970-1980), Baruneshwor Secondary School, Rampur, Okhaldhunga, Nepal.

- Working Experience and Positions Held

  1. Head, CDM, IOST, TU (since 16 Jan 2020, to date).
  2. Coordinator, M.Phil. Program, CDM, IOST, TU (since 15 August 2016 - 17 August 2019).
  3. Professor of Mathematics, CDM-TU-Nepal (13 May 2013, to date).
  4. Humboldt Research Fellow, UKL, Germany (1 July - 31 Dec 2014; 1 Jan - 30 June 2013; 1 April - 30 Sep 2012).
  5. Associate Professor of Mathematics, CDM-TU-Nepal (Sep 20 2009 - 12 May 2013).
  6. Head, Central Department of Computer Science and IT (CDCSIT), TU-Nepal (1 June 2007 - 27 Sep 2013).
  7. Visiting Professor, Chonbuk National University, Korea (11 June - 10 Aug 2008).
  8. Asst. Professor, CDM-TU-Nepal (18 Sep 1993 - 19 Sep 2009).

9. Post-doc Fellow, Memorial University of NFL, Canada (21 Sep 2004 -21 July 2005).
10. Visiting Faculty, CDCSIT-TU-Nepal (1 Jan 2004 - 30 June 2004).
11. Assistant Lecturer, CDM-TU-Nepal (20 March 1990 - 17 Sep 1993).

- International Research Collaborations/Projects

1. DAAD partnership between UKL-FMA, ; Mindanao State University, IIT, Philippines and CDM-TU (**Principal Investigator**, 2016-2019).
2. Alexander von Humboldt Research Group Linkage Program between CDM-TU and TU Bergakademie, Freiberg, Germany (TUFB) (**Principal Investigator**, 2016-2018).

- Academic/Research and International Visits

  – KIT Karlsruhe, Institute of Operations Research (IOR), Germany (scientific meeting, 15-17 June 2023).
  – Department of Mathematics, Veer Surendra Sai University of Technology Siddhi Vihar, Burla, Odisha, India (scientific meeting, 7-8 Feb 2020).
  – Department of Mathematics, Berhampur University Bhanja Bihar, Odisha, India (scientific meeting, 4-5 Feb 2020).
  – Department of Mathematics, South Asian University (SAU), New Delhi, India (scientific meeting, 3 Feb 2020).
  – Myanmar (DAAD scientific meeting, 11-13 Nov 2019).
  – Siksha 'O' Anushandhan University, Odisha, India (scientific meeting, 23-26 Oct 2019; 6 Feb 2020).
  – Tagbilaran, Bohol, Philippines (DAAD scientific meeting, 31 Aug - 14 Sep 2019).
  – Institute for Mathematical Research, Universiti Putra Malaysia; Malaysia Institute of Transport & Faculty of Computer Science and Mathematics, Universiti Teknologi MARA (scientific meeting, 31 Aug 2019).
  – Faculty of Science, Technology and Communication, University of Luxembourg (scientific meeting, 23-25 June 2019).
  – Shangrao Normal University, China (scientific meeting, 15-18 April 2019).
  – Brainware University, Barasat, Kolkata, India (scientific meeting, 2-4 February 2019).
  – Technical University Berlin, Germany (scientific meeting, 5-6 December 2018).
  – School of Mathematics and Computational Science, Xiangtan University, China (scientific meeting, 24-26 July 2018).
  – Peking University and Silkroad Mathematics Center, Beijing, China (scientific meeting, 23-26 July 2018).
  – Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur, India (scientific meeting, 4-5 May 2018).
  – Mathematical and System Sciences, Chinese Academy of Sciences and Silkroad Mathematics Center of Chinese Mathematical Society, Beijing (scientific meeting, 9-12 Dec 2016, 15-22 April 2017, 22-27 July 2018, 10-13 April 2019).
  – TUFB, Germany (2 June - 30 Aug 2023, 3-13 April 2023, 10-12 June 2019, 15 Sep - 12 Dec 2018, 2 Nov 2017 - 29 Jan 2018, 24 Oct 2016).
  – Mindanao State University, Iligan Institute of Technology, Philippines (scientific meeting, 10-30 June 2016).
  – Colombo, Sri Lanka (scientific meeting, 16-20 May 2017, 26-29 Oct 2015).
  – New Delhi, India (DAAD Research Ambassadors Workshop, 13-15 Nov 2014).
  – UKL Germany (23-24 Aug 2023, 2-28 June 2019, 25-27 Sep 2018, 1-30 June 2017, 15 Oct- 14 Nov 2016, 1 July- 31 Dec 2014, 1 Jan- 30 June 2013, 1 April- 30 Sep 2012, 19 Sep- 2 Oc 2010, 1-20 June 2006, 1 Oct 1994- 30 Sep 1996).
  – Kolaghat, India (scientific meeting, 27-29 Dec 2013).
  – UMD, Germany (26-27 June 2023, 12 Dec 2017, 5 Nov 2014, 7 May 2013, 27 June 2012, 1 May 2010 - 14 June 2010, 1 Oct 2006 - 30 Nov 2006, 1 Oct 1999 - 24 May 2002).
  – Chonbuk National University, South Korea (11 June 2008 - 10 Aug 2008).
  – Memorial University of Newfoundland, Canada (21 Seo 2004 - 21 July 2005).
  – DIMACS, Center of Discrete Mathematics and Theoretical Computer Science, USA (June 2003).
  – IIT Bombay, India (Scientific Meeting, December 2002).
  – Goethe Institute Hannover, Germany (1 Aug 1999 - 30 Sep 1999).
  – Aussois, France (Scientific Meeting, June 2001).
  – Goethe Institute Freiburg, Germany (01 Aug 1994 - 30 Sep 1994).
  – Tokyo, Hiroshima, Oklahoma Japan, Japan (educational tour, 1989).

- Other countries: Hong Kong (1989), Thailand (1989), Karachi (1994), Dhaka (1996), Bahrain (2001), London (2003), Abu Dhabi, Czech Republic (2018), Malaysia (2019), Doha.

- Teaching and Research Experiences/Interests (Undergraduate, Master, MPhil.)

  1. **Specific.** Scheduling Theory and Algorithms, Linear, Integer and Nonlinear Programmings, Combinatorial, Network, Numerical and Multi-objective Optimizations, Location Analysis, Graph Theory, Operations Research Techniques, Computational Mathematics, Research Techniques/Seminar.
  2. **General.** Linear and Abstract Algebra, Mechanics and Hydrodynamics, Discrete Mathematics, Differential and Integral Calculus, Differential Equations, Mathematical Analysis, Numerical Analysis, Mathematical Modelings.
  3. Teaching Experiences in Undergraduate, Master's and MPhil. Degree.

- Students Supervision/Evaluation

  1. PhD graduates Supervision
     (a) Dr. Shree Ram Khadka, CDM-TU (Mixed-Model Just-in-Time Sequencing Problem, Jan 27, 2012).
     (b) Dr. Gyan Bahadur Thapa, Institute of Engineering, TU (Characterizations of Just-in Time Sequencing Problems with Apportionment and Supply Chain, Dec 28, 2013).
     (c) Dr. Urmila Pyakurel, CDM-TU (Evacuation Planning Problem with Contraflow Approach, March 4, 2016).
     (d) Dr. Iswar Mani Adhikari, Prithvi Narayan Campus, TU (Evacuation Optimization with Minimum Clearance Time, March 19, 2021).
     (e) Dr. Ram Chandra Dhungana, CDM-TU (Efficient Dynamic Flow Algorithms for Evacuation Planning, March 23, 2021).
     (f) Dr. Hari Nandan Nath (with Prof. Dr. Stephan Dempe), Bhaktapur Multiple Campus, TU (Optimization Models and Algorithms for Evacuation Planning, July 2021).
     (g) Dr. Shiva Prakash Gupta (with Prof. Dr. Urmila Pyakurel), Tri-Chandra Multiple Campus, TU (Models and Algorithms for Flow Over Time Problems, April 2023).
     (h) Durga Prasad Khanal (with Prof. Dr. Urmila Pyakurel and Prof. Dr. Stephan Dempe), Saraswati Multiple Campus, TU (Multi-Commodity Dynamic Flow Problems with Intermediate Storage and Varying Transit Times, submitted).
     (i) Badri Prasad Pangeni, Prithvi Narayan Campus, TU (Continuous Dynamic Flow Problems with Intermediate Storage, in progress, since 2020).
     (j) Mohan Chandra Adhikari (with Prof. Dr. Urmila Pyakurel), CDM-TU (Discrete Time Dynamic Flow Problems with Intermediate Storage, since 2021).
     (k) Bishow Raj Adhikari (with Prof. Dr. Urmila Pyakurel), Prithvi Narayan Campus, TU (Multicriteria Optimization Models and Methods with its Applications, since 2022).
     (l) Dipakbabu Amgain (with Prof. Dr. Urmila Pyakurel), CDM-TU (Location Routing-Scheduling Problems in Logistics Network, since 2022).
     (m) Sachin Wagle (with Prof. Dr. Urmila Pyakurel), Institute of Engineering, TU (Location Models and Methods for Transportation Optimization, since 2022).
     (n) Giri Raj Paneru (with Dr. Hari Nandan Nath), Tri-Chandra Multiple Campus, TU (Network Flow with Variable Capacities: Modeling, Algorithms, and Applications, since 2023)
  2. PhD Thesis Evaluation
     (a) Improvement of algorithm in the particle tracking velocimetry. Department of Electronics and Computer Engineering, IOE, TU (May 2007).
     (b) Color correction algorithm for reproducing spot colors. Department of Electronics and Computer Engineering, IOE, TU (December 2007).
     (c) A study on inventory management system. Department of Mathematics. Institute of Technical Education and Research, Siksha 'O' Anusandhan University (SOAU) (July 2016).
     (d) Deterministic equivalent of multi-objective fuzzy chance constrained programming problem. SOAU, (July 2017).
     (e) Development of robust invisible watermarking algorithm using slant transform. Department of Electronics and Computer Engineering, IOE, TU (April 2018).
     (f) EOQ models for imperfect quality items with varying demand and allowable proportionate discount in fuzzy environment. SOAU (April 2018).
     (g) A study on fuzzy dynamic programming techniques in optimization problems. P.G. & Research Department of Mathematics, Chennai Bharathiar University, Coimbatore, Tamilnadu, India (August 2019).
     (h) Mathematical modeling of markovian queueing models and their applications. Department of Applied Science and Chemical Engineering, IOE, TU (October 2020).

(i) Fuzzy stochastic calculus and it's applications in financial problems. Department of Mathematics, Institute of Technical Education and Research, SOAU (April 2023).

(j) On signed Cayley and common-edge graphs with applications in encryption and decryption. Department of Mathematics, Faculty of Mathematics & Computer Science, SAU (September 27 2023).

3. MPhil. Students Supervision: total **10** (completed **6** & ongoing **4**)

   (a) Sushmita Shrestha, Central Department of Mathematics, TU, Nepal (Optimising Facility Location: Three-phase Approach for Single Source Capacitated Location, October 2023).

   (b) Nowraj Tiwari, Central Department of Mathematics, TU, Nepal (Optimizing Profit Using Mixed Integer Linear Programming on Hub Location Problem, October 2023).

   (c) Madan Bahadur Chand, Central Department of Mathematics, TU, Nepal (Continuous-time Dynamic Flow Problems, April 2022).

   (d) Santosh Gautam (with Dr. Urmila Pyakurel), Central Department of Mathematics, TU, Nepal (Dynamic Flow on Lossy Network, July 19, 2021).

   (e) Deepak Babu Amagain, Central Department of Mathematics, TU, Nepal (Quickest flow problem with time dependent attributes, July 19, 2021).

   (f) Anjana Devi Bhandari, Central Department of Mathematics, TU, Nepal (Quickest Flow Problem and Its Application, January 2020).

   (g) Tirtha Bhandari, Central Department of Mathematics, TU, Nepal (Dynamic Shortest Path Problem with Time Windows, in progress, since 2020).

   (h) Meena Machamasi, Central Department of Mathematics, TU, Nepal (A study of A* algorithm in FIFO Networks, in progress, since 2020).

   (i) Durga Prasad Khanal (with Dr. Urmila Pyakurel), Central Department of Mathematics, TU, Nepal (Dynamic Flow with Inflow-dependent Transit Times, February 2019).

   (j) Shiva Prakash Gupta, Central Department of Mathematics, TU, Nepal (Earliest Arrival of Evacuees with Contraflow Approach, March 2016).

4. Master's Degree Thesis Supervision: total **44** (completed **40** & ongoing **4**)

   – Elina Shrestha (CDM, TU), Efficient Algorithm on Flow Model with Intermediate and Its Application.
   – Jayanti Saud (CDM, TU), Flow Location Models and Algorithms for Evacuation Planning.
   – Ram Chandra Timilsina (CDM, TU), An optimization approach for real time evacuation reroute (November 2023).
   – Kushal Thapa (CDM, TU), Flow model for optimal location of alternative refueling stations (in progress).
   – Bikram Gautam (CDM, TU,)
   – Rachan Chhetri (CDM, TU), Evolutionary Multi-objective Optimization for Cancer Chemotherap (June 2022).
   – Sunil Raj Subedi (CDM, TU, 2021), Quadratic programming and its use in portfolio optimization.
   – Kamal Paudel (CDM, TU), A study on minimum cost flow algorithms.
   – Binita Bhatta (CDM, TU), Maximum Flow Problem on Dynamic Network.
   – Tej Prasad Adhikari (CDM, TU, May 2019), Discrete Facility Location Analysis.
   – Komal Raj Joshi (CDM, 2014), Contraflow Optimization for Evacuation Planning.
   – Ajit Poudel (CDM, 2014), Earliest Arrival Flows in Discrete Dynamic Network.
   – Sanat Kumar Acharya (CDM, 2014), Earliest Arrival Flows in Dynamic Network.
   – Ram Chandra Dhaungana (CDM 2014), Efficient Algorithm on Universally Maximum Contraflow.
   – Jnaneshwar Chalise (CDM, 2014), A Study of Earliest Arrival Flow on Series Parallel Graphs.
   – Rajendra Joshi (CDCSIT, 2013), Metaheuristic Solutions to the Response Time Variability Problem.
   – Rabi K.C. (CDM, 2013), Integrated Scheduling Location Problems with Makespan Objectives.
   – Prava Shrestha (CDM, 2013), Integrated Scheduling Location Problem with Sum Objectives.
   – Min Bd. Rana (with S.R. Khadka) (CDM, 2012), Evacuation Planning and Contraflow Network.
   – Ram Krishna Dahal (CDCSIT, 2012), Performance Analysis of Hash Message Digests SHA-2 and SHA-3 Finalists.
   – Tej Bd. Shahi (CDCSIT, 2012), Support Vector Machine Based Part of Speech Tagging for Nepali Text.
   – Bal Krishna Subedi (CDCSIT, 2012), Minimizing the Evacuation Time of Traffic Management Systems Using Simulated Annealing Algorithm.
   – Nanda Kishor Roy (CDCSIT, 2012), Improved Multi-Start Method for Solving the Response Time Variability Problem.
   – Prem Prasai (CDM, 2012), On the Stability Analysis of Open Shop Sequences with Bounded Processing Times.
   – Janak Joshi (CDCSIT, 2012), Heuristic Solution to Single Machine Scheduling Problem to Minimize Total Completion Time.

- Narendra Bohara (CDCSIT, 2012), Implementing Key Establishment Protocol for Secure System.
- Thaneshwor Paneru (CDCSIT, 2011), Symmetric Encryption Algorithm Using Code Reuse Technique for Authentication Based on Needham Schoeders' Protocol.
- Laxmi Joshi (CDCSIT, 2010), A Computational Analysis of Balanced Sequences for JIT Optimization Problems.
- Puja Bhatt (CDCSIT, 2010), Scheduling Jobs on a Single Machine to Minimize the Number of Tardy Jobs with Release Time Constraints.
- Raju Prasad Bhusal (CDM, 2010), Irreducibility of Open Shop Scheduling Problems.
- Deepak Babu Amgain (CDM, 2010), On the Structural Analysis of Shop Scheduling Problems: Algebraic Characterizations and Potential Optimality.
- M. Bdr. Khadka (CDCSIT, 2009), An Efficient Algorithm for Mixed Model Just-in-time Production System with Chain Constraints.
- Thaneshwor Pd. Paneru (CDM, 2009), Sequencing Approaches to the Product Rate Variation Problem.
- Prem Bhatta (CDCSIT, 2009), On the Cyclic Sequences in Mixed Model JIT Production System.
- B. Pandey (CDCSIT, 2009), Cyclic Sequences for Min-max Objective in Mixed Model JIT Production System.
- N. Regmi (CDCSIT, 2008), Evaluating Heuristic Solutions for NP-hard Single Machine Scheduling Problems.
- D. Pandey (CDCSIT, 2008), On the Solvability and Implementation of Mixed Model JIT Production System.
- Chudamani Poudyal (CDM, 2008), Bottleneck Just-in-time Sequencing for Mixed-model Production Systems.
- Dina Nath Poudyal (CDM, 2008), Open Shop Scheduling Problems with Unit Processing Times.
- Milan Joshi (CDM, 2008), Open Shop Scheduling Problems with Arbitrary Processing Times.
- Urmila Pyakurel (CDM, 2008), On the Solvability of Open Shop Scheduling Problems.
- Yagya Raj Pant (CDM, 2008), On the Relations Between the Optimal Solutions of Product Rate Variation Problem with Different Objectives.
- Bishnu Gautam (CDCSIT, 2004), Complexity Analysis of Open Shop Scheduling Problems.
- Mulepati (CDCSIT, 2004), Computational Complexity Analysis of Job Shop Scheduling Problems.

- Academic Membership (Journal, Organization, University and Government)

1. Academic Accountability
   (a) University Chair/Member
      i. Institute of Engineering, TU: Research Committee (Member 2023-...); Applied Sciences and Chemical Engineering Subject Committee (Member 2020-...).
      ii. CDM-TU: Research Committee (Chairman 2020-..., Member 2015-..., 2006-2010); Standing Committee (Chairman 2020-..., Member 2010-...), Subject Committee (Chairman 2020-..., Member 2008-...).
      iii. Mathematical Sciences IOST, TU: Management Committee (Member 2020-...), Subject Committee (Member 2013-2016).
      iv. Member Academic Council, Tribhuvan University, Kathmandu Nepal (2020-2022).
      v. Department of Mathematics, School of Science, Kathmandu University (KU): Subject Committee (Member 2020-2023, 2008-2011).
      vi. Central Department of Linguistics, TU: Subject Committee (Member 2011-2014).
      vii. CDCSIT-TU: Subject Committee, Standing Committee and Research Committee (Chair 2007-2013); Subject Committee (Member).
      viii. IOST-TU: Faculty Board (Member 2007-2013, 2020-...); Standing Committee (Member 2007-2008, 2020-...),
   (b) Other Chair/Member: Science & Technology Cluster, University Grants Commission, Nepal (Member 2019-2021); Mathematics Subject Committee, HSEB, Government of Nepal (Chairman 2015-2016); Nepal Information Technology Council (Member 2011- 2013); Mathematical Sciences Scientific Sub-Committee, NAST (Member 2006-2009, 2016-2018).
2. Journals
   (a) Editor-in-Chief
      i. International Journal of Operational Research Society of Nepal - IJORN (2013-2014).
      ii. Journal of Nepal Mathematical Society- JNMS (2017-2018).
      iii. The Nepali Mathematical Sciences Report- Nepali Math. Sci. Rep. (2020-...).
   (b) Editorial Board Member: Recent Trends in Applied Mathematics- Select Proceedings of AMSE 2019 (Springer Nature), Academic Journal of Applied Mathematical Sciences (2020-2022), Indian Journal of Mukpublications: Applied Mathematics and Computing (2020-...), Malaysian Journal of Computing (MJoC, 2020-2022), Nepali Math. Sci. Rep. (1998-2006, 2014- ...), IJORN (2012, 2015), NMS News Letter (2006-2009).

(c) Advisory Board Member: Mindanawan Journal of Mathematics.

(d) Reviewer: Mathematical Reviews (2015-...), Zentralblatt Math (2015-...).

(e) Guest Reviewer: OPSEARCH (2023-...); Discrete Dynamics in Nature and Society (2023-...); Journal of Industrial and Management Optimization (2022-...); SN Scientific Reports (2021-...); Journal of Hindawi (Advanced Transportation (2020-...); Annals of Operations Research (2019-...); International Journal of System Control and Information Processing- IJSCIP (2017-...); International Journal of Cities, People and Places- ICCPP (2017-...), Journal of Institute of Engineering (2016-...); Engineering Optimization, Taiwan (since 2015-...); Information Technology Research Journal (2011-...); Journal of Decision Support Systems (2010-...); Journal of Science and Technology, NAST (2009-...); Journal of OR Society, UK; Proceedings of ECIC (2008).

3. International Society Member: American Mathematical Society (2018-...); Steering Committee of the Silkroad Mathematics Center of Chinese Mathematical Society Beijing (2016-2019); International Society on Multiple Criteria Decision Making- MCDM (2010-...).

4. National Society Chair/Member: CDM-TU Alumni Association (Patron 2023), Nepal Mathematical Society (President 2015-2018, Advisor 2018-2023, Secretary 2006-2009, Life member-...); Nepal German Academic Association (NEGAAS) (President 2020-2022; Vice-President 2014-2016, EC 2006-2008, Life member: 2005-...); Humboldt Club of Nepal (2015-...); German Alumni Association of Nepal- GAAN (2015-2017); ORSN (General 2010-2011, Life 2012-..., EC 2013-2015).

- Seminar/Workshop/Conference (Organizer/Advisor/Member): total **33+**

  – Member, Int'l Advisory Committee- 3rd Int'l Conference on Applied Mathematics in Science and Engineering (AMSE-2024), July 25-27, 2024, Odisa, India.

  – Patron: International Workshop in Computational Mathematics (IWCM-2023), organized by CDM-TU and SAU, March 11-13, Kathmandu.

  – Patron: Infectious Disease Workshop- Mathematical Modeling for Epidemic Control and Prevention, organized by CDM-TU, Nepal Health Research Council- Nepal Government and San Diego State University, US, 21-24 June 2022.

  – Patron: A Three Day Workshop on Numerical Linear Algebra, Modeling and Simulation of Evolution Equation (NLAMSEE-2022), organized by CDM-TU and UKL, October 17-19, Kathmandu.

  – Member and Session Chair: International Conference "Interdisciplinary Collaboration for Strengthening Science and Culture", KHK-2022, organized by Humboldt Club Nepal, October 16-19.

  – Member: Intl Advisory Committee, Third International Conference on Emerging Trends in Mathematical Sciences & and Computing (IEMSC-22), Department of Basic Science & Humanities Institute of Engineering & Management, Kolkata, India (February 4-6, 2022).

  – Member: International Advisory Committee, 2nd Intl Conference on Applied Mathematics in Science and Engineering (AMSE-2022), SOAU, March 24-26, March 2022.

  – Member: Scientific Committee, 22nd International Mathematics Conference (virtual), organized by Bangladesh Mathematical Society, December 10-11, 2021.

  – Coordinator: 1st Virtual Southeast Asian Study Group Meeting on Industrial Problems, organized/ collaborated by Nepal, Germany, UK, Finland, Thailand, Malaysia, India and other SAARC countries (VSEASGMIP2020), hosted by Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India, October 12-16.

  – Coordinator: 2nd Virtual Southeast Asia Study Group Meeting on Industrial problems (VSEASGMIP2021), Office of International Affairs, Center for Industrial Mathematics, Department of Applied Mathematics, Mathematics and Statistics The Maharaja Sayajirao University of Baroda, Vadodara,Gujarat,India, November 15-19, 2021.

  – Coordinator: Virtual Workshop on Managing Disaster Risk- A Way to Sustainability, NEGAAS, 21-22 Nov 2021.

  – Member: Advisory Board, International Conference on Recent Advances in Informatics, Communication, Management, Health and Applied Sciences, Brainware University, Kolkata, February 2-4, 2019.

  – Member, International Scientific Committee: International Conference on Applied Mathematics, Modeling, Simulation and Optimization (AMMSO2019), April 21-22, 2019 in Guilin, China.

  – Convener: 2nd International Conference on Advanced in Computational Mathematics, organized by CDM-TU and SAU, December 23-24, Kathmandu.

  – Member: Intl Advisory Board, 23rd Intl Conference of International Academy of Physical Sciences, Advances on Physical Sciences to Achieve Sustainable Development Goals, NAST, November 16-18, 2018.

  – Coordinator: Scientific Committee, 11th Triennial Conference of Association of Asia Pacific Operational Research Societies (APORS-2018), August 6-9, Kathmandu.

- Organizer: Workshop on Linear, Integer and Multi-Criteria Optimization, DAAD Partnership Program, March 12- April 23, 2018, Kathmandu. Principal resource person- Prof. Sven O. Krumke, UKL.
- Organizer: Workshop on Convex Optimization, supported by Research Group Linkage Program of the AvH, February 27- March 7, 2018, Kathmandu. Principal resource person- Prof. Stephan, Dempe, TUFB.
- Co-organizer (with Urmila Pyakurel and Marc Goerigk): Preparation Workshop for UK-Nepal Cooperation in Emergency Management Research (Optimization Models for Disaster Resilience in Nepal), organized by Lancaster University, United Kingdom and CDM-TU, September 1-2, 2017, Kathmandu.
- Organizer: Workshop on Advanced Network Flows, supported by DAAD Partnership Program, March 26- April 6, 2017, Kathmandu. Principal resource person- Prof. Sven O. Krumke, UKL.
- Organizer: Workshop on Bilevel Optimization, supported by Research Group Linkage Program of the AvH, February 28- March 7, 2017, Kathmandu. Principal resource person- Prof. Stephan, Dempe, TUFB.
- Convener: International Conference on Applications of Mathematics to Nonlinear Sciences, organized by CDM-TU, NMS, ANMA and KU, May 26-29, 2016, Kathmandu.
- Coordinator: Workshop on Mathematical Modeling in Emergency Mitigation Using Optimization and Simulation Methods, organized by NEGAAS in collaboration with CDM-TU and ORSN, November 26- 29, 2013.
- Organizer: Workshop on Theoretical Computer Science, organized by CDCSIT-TU, December 4-6, 2012. Principal resource person: Dr. Arne Meier, University of Hannover, Germany.
- Organizer: Seminar on Singularities and Applications, organized by CDCSIT and CDM, TU, October 8-10, 2012. Principal resource person: Prof. Dr. Gerhard Pfister, UKL.
- Member: International Conference on OR, organized by OR Society of Nepal, February 1-2, 2012.
- Convener: National Workshop on Mathematical Modeling in Emergency Planning, organized by NEGAAS in collaboration with CDM-TU, March 1-4, 2011. Principal resource person- Prof. Horst W. Hamacher.
- Convener: National Workshop on Fuzzy Sets and Fuzzy Logic with Applications, organized by CDM-TU and Central Department of Environmental Science-TU, December 1-5, 2009.
- Coordinator: Monthly Talk Organizing Committee, NMS (2006-2009).
- Co-organizer: Workshop on Computational Linguistics, organized by CDCSIT-TU and Central Department of Linguistics, TU, February 15-20, 2009.
- Member: Organizing Committee, the 10th International Workshop on Multimedia Signal Processing and Transmission (MSPT), Chonbuk National University, South Korea, July 21-22, 2008.
- Member Secretary: International Conference on E-Commerce in the 21st Century (ECIC-2008), organized by CDCSIT-TU, 2-4 June, 2008.
- Summer School (Coordinator: Managing Committee & Member: Organizing Committee), organized by NAST and NMS, May 28- June 15, 2007.

- Seminar/Workshop/Conference (Presentation and Participation): total **83+**
  - Keynote speaker: Roles of OR modelings for Reducing Traffic Congestion, Int'l Conference of ORSN, Kathmandu, February 1-2, 2024.
  - Invited Talk: Urmila's dedication to Science, Society and Humanity, organized by Women of Nepal in Mathematical Science (NoNiMS), 10th WoNiMS Day- 2023, Kathmandu.
  - Keynote speaker: Progress Dissemination on Flow Models, PhD Festival, IOST, TU, 9-10 October 2023.
  - Participation: Third NRN Global Knowledge Convention, organized by Non Resident Nepali Association, October 17-18, 2023, Kathmandu.
  - Talk: Network Flow Models for Flow Improvement, Research Seminar, FMA-RPTU-KL, September 22, 2023.
  - Talk: Flow Improvements: Priority Based Multiple Objectives, Research Seminar, Department of Mathematics and Computer Science, TUFB July 27, 2023.
  - Talk: Insights on Efficient Evacuation Planning Issues, Research Seminar, FMA-UMD, June 27, 2023.
  - Talk: (with Durga Pd. Khanal, Urmila Pyakurel, Stephan Dempe, Ingo Schiermeyer), Prioritized Maximum Multi-Commodity Flow in Evacuation Planning, 6^{th} Intl Conference on Dynamics of Disasters (DOD), Athens, 3-6 July 2023.
  - Participation: Annual Meeting of the Alexander von Humboldt Foundation, June 28-30, 2023, Berlin, Germany.
  - Talk: Results on Emergency Planning Strategies - Overview. Karlsruhe Institute of Technology (KIT), Institute of Operations Research (IOR), Germany, June 15-17, 2023.

- Invited speaker: OR Models for Congestion Reduction and Emergency Relief: A Collaborative Outcome. Intl Conference "Interdisciplinary Collaboration for Strengthening Science and Culture", KHK-2022, organized by Humboldt Club Nepal, October 16-19.
- Invited speaker: Innovation and Knowledge Management - Chaotic Transport Optimization for Sustainable Development. 9th National Conference on Science and Technology "Science for Society and Innovation for Prosperity", organized by NAST, June 26-28, 2022.
- Guest of honor, plenary speaker and session chair: Network Reconfiguration for Optimal Evacuation Plans, International Conference Advances in Mathematics & Computing (ICAMC-2020), Department of Mathematics, Veer Surendra Sai University of Technology Siddhi Vihar, Burla, Odisha, February 7-8.
- Guest of honor and keynote speaker: Computational Hardness of Evacuation Planning Problem, 3rd International Conference on Advanced Mathematical Analysis & Its Applications (ICAMAA-2020), P.G. Department of Mathematics Berhampur University Bhanja Bihar, Odisha, February 4-5.
- Talk: Efficient Algorithms for Evacuation Planning Problems, Department of Mathematics, SAU, February 3, 2020.
- Talk: Network Reconfiguration for Optimal Evacuation Plans, Siksha 'O' Anushandhan University (Deemed to be University), Odisha, India, February 6, 2020.
- Poster: GraThO (Graph Theory and Optimization for the Industry and Society), DAAD - ASIA Network Conference. Myanmar, November 11-13, 2019.
- Invited talk, guest of honor and session chair: Significance of Dynamic Network Attributes in Realizing the Emergency Planning Optimal Solutions, Intl Conference on Applied Mathematics in Science and Engineering, Center for Applied Mathematics & Computing and Department of Mathematics of SOA, Odisha, India, October 24-26, 2019.
- Talk: Optimal Network Topology for the Maximization of Dynamic Flows, Institute for Mathematical Research (INSPEM), Universiti Putra Malaysia (UPM), August 31, 2019.
- Talk: Dynamic Network Flow Algorithms for the Quickest Evacuation Planning Problem. LIAS Seminar, University of Luxembourg, June 24, 2019.
- Talk: Optimal Network Topology for the Quickest Evacuation Planning, Research Seminar, TUFB, June 11, 2019.
- Plenary speaker: Intl Conference on Mathematical Optimization - Silkroad Mathematics Center Series Intl Conferences, Chinese Mathematical Society and Academy of Mathematics and Systems Science, Chinese Academy of Sciences (AMSS, CAS), Beijing, April 8-13, 2019.
- Plenary speaker and session chair: The 12th Intl Conference on Numerical Optimization and Numerical Linear Algebra, Shangrao, Jiangxi, organized by AMSS, CAS, April 15-18,2019.
- Plenary chair: 2nd International Conference on Advanced in Computational Mathematics, organized by CDM-TU and SAU, December 23-24, Kathmandu.
- Talk: Flow Models and Solution Strategies for Evacuation Planning Problems, Department of Mathematics, Technical University Berlin, Germany, December 5, 2018.
- Talk: Insights on Dynamic Network Flow Problems for Evacuation Planning, FMA-UKL, November 26, 2018.
- Plenary speaker: International Conference on Recent Advances in Informatics, Communication, Management, Health and Applied Sciences, Brainware University, Kolkata, February 2-4, 2019.
- Plenary speaker and plenary session chair: Strength and Weakness of Flow Models and Solution Strategies in Emergency Planning, APORS-2018, August 6-9, Kathmandu.
- Talk: Network Flow Algorithms for Evacuation Planning Problems, School of Mathematics and Computational Science, Xiangtan University, China, July 24-26, 2018.
- Keynote speaker: On the Hardness of Network Optimization Algorithms in Emergency Management, Intl Conference on "Advances in Science and Technology, Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur (INDIA), May 4-5, 2018.
- Talk: Flow over Time Problems with Variable Attributes, Research Seminar, TUFB, Germany, January 18, 2018.
- Talk: Influence of Contraflow Reconfiguration for Dynamic Flow Models on Congested Networks, Research Seminar, UMD-FMA, Germany, December 12, 2017.
- Talk: Highlights and Implementation Challenges of Emergency Planning Models for Kathmandu, Preparation Workshop for UK-Nepal Cooperation in Emergency Management Research (Optimization Models for Disaster Resilience in Nepal), organized by Lancaster University, UK and CDM-TU, September 1-2, 2017, Kathmandu.
- Invited talk and session chair: Dynamic Flow Models and Algorithms for Evacuation Planning, International Conference on Computational Modelling and Simulation (ICCMS-2017), Sri-Lanka, May 17-19.

- Talk: Model Variants and Solution Strategies of Evacuation Planning Problems, Academy of Mathematics and System Sciences, Chinese Academy of Sciences, Beijing, China, April 19, 2017.
- Talk: Impacts of OR Solution Strategies in Real-Life, National Conference on Mathematics and Its Applications, organized by NMS, Chitwan, Nepal, January 11-13, 2017.
- Talk: Meaningfulness of Emergency Planning Strategies, Colloquium, Chinese Mathematical Society, China Academy of Sciences, Beijing, December 9, 2016.
- Talk: Models and Algorithms of Evacuation Planning Problems, Research Seminar, TUFB, October 24, 2016.
- Participation: Workshop on Optimization and Graph Theory for Industry and Society, MSU-IIT, Philippines, June 13-24, 2016.
- Plenary speaker: Impact of Network Flow Models on Emergency Planning, International Conference on Applications of Mathematics to Nonlinear Sciences, organized by CDM-TU, NMS, ANMA and KU, May 26-29, Kathmandu.
- Invited talk: On the Meaningfulness of OR Models and Algorithms for Emergency Planning, International Conference - Humboldt Kolleg, Living under Threat of Earthquake, Kathmandu, February 19-22, 2016.
- Talk: Significance of Transportation Network Models in Emergency Planning of Urban Cities, Third International Urban Design Conference - Cities, People and Places (ICCPP -2015), October 26-28, Colombo, Sri-Lanka.
- Keynote speaker: Relevance of OR Models in Evacuation Optimization, Mathematics Day, CDM-TU.
- Talk: Evacuation Planning: A Case Study for Kathmandu, NEGAAS, April 11, 2015.
- Participation: Alumni Workshop, Research on Migration from Nepal, March 19, 2015, Kathmandu.
- Keynote speaker: OR Models for Evacuation Planning: Kathmandu Metropolitan Perspective, National Conference of ORSN, February 1, 2015.
- Talk: Model Variants for optimal Evacuation Planning with Solution Procedures, CDM-TU, January , 2015.
- Panelist moderator: DAAD Research Ambassador's workshop meeting, November 13-15, New-Delhi, 2014.
- Talk: Evacuation Planning Optimization - Model Variants and Solution Strategies, Research Seminar, UMD-FMA, Germany, November 5, 2014.
- Talk (with S.R. Khadka and U. Pyakurel): Efficient Evacuation Through Optimal Network, Annual day of NMS, Kathmandu, May 17, 2014.
- Plenary speaker: On the Current Status of Solution Approaches for Evacuation Network Optimization, International Conference on Recent Trends in Science and Technology, Kolaghar, India ICRTST 2013, December 27-29.
- Talk: Contraflow Configuration, Workshop on Mathematical Modeling in Emergency Mitigation Using Optimization and Simulation Methods, organized by NEGAAS in collaboration with CDM-TU and ORSN, November 26-29, 2013.
- Talk (with M. Goerigk and Horst W. Hamacher): Dynamic Network Models, Algorithms and Complexities of Evacuation Planning Optimization Problems: Revisited, Intl Conference on Nonlinear Systems, 18-22 June 2013, Nepal.
- Talk (with Urmila Pyakurel): Earliest Arrival Contraflow Model for Evacuation Planning, International Conference on Nonlinear Systems, 18-22 June 2013, Kathmandu.
- Talk (with Urmila Pyakurel): Earliest Arrival Contraflow Problem for Evacuation Planning, Second National Conference on Operations Research: Applications in Developing Countries, ORSN, February 1-2, 2013.
- Talk: Evacuation Planning Network Optimization, Research Seminar, UKL-FMA, Germany, June 10, 2013.
- Talk: Contraflow Approach for Evacuation Planning Network Optimization Algorithms, Research Seminar, Department of Theoretical Computer Science, LUH, Germany, May 15, 2013.
- Talk: On the Optimization Approaches of Evacuation Planning Network Problems, Research Seminar, UMD-FMA, Germany, May 7, 2013.
- Talk: Mixed-Model Just-in-Time Sequencing Algorithms, Research Seminar, UMD-FMA, Germany, June 27, 2012.
- Participation: Annual Meeting of Alexander von Humboldt Foundation, June 19-21, 2012, Berlin, Germany.
- Participation: Study Tour of Alexander von Humboldt Foundation, August 20-September 1, 2012, Berlin, Germany.
- Talk: An Efficient Algorithm for Mixed-Model Just-in-Time Production with a Generalized Objective, Research Seminar, Department of Theoretical Computer Science, LUH, Germany, May 30, 2012.
- Poster: Evacuation Planning Network Optimization, Research Project Highlights, Network Meeting of the AvH, Aachen, Germany, 25-27 April 2012.
- Panelist, OR for Sustainable Development, International Conference on OR, ORSN, Feb 1-2, 2012.
- Participation: Summer School in Industrial Mathematics, UKL and Fraunhofer-Institute for Industrial Mathematics, Germany, 19 September- 2 October, 2010.

- Talk: Reducibility Problems of Open Shop Sequences. TU Clausthal-Zellerfeld, Germany, June 10, 2010.
- Talk: Reducibility Problems of Open Shop Sequences Minimizing the Makespan. UMD-FMA, June 1, 2010.
- Talk: Irreducibility in Open Shop Problems. UKL-FMA-Germany, May 10, 2010.
- Invited talk: New Results on Product Rate Variation Problem. Seminar organized by CDM-TU and NMS on 50th Anniversary of CDM-TU, September 20, 2009.
- Talk: An Algorithm to the Bottleneck Product Rate Variation Problem with Square Deviation Objective. 5th National Conference on Science and Technology, NAST, November 10-12, 2008.
- Talk: A Combined Approach to the Solutions of Mixed-model JIT Sequencing and Apportionment Problems. 5th National Conference on Science and Technology, NAST, November 10-12, 2008.
- Invited talk: Status of Teaching, Learning and Research of Mathematics in Nepal. 5th National Conference on Science and Technology, NAST, November 10-12, 2008.
- Talk: Structures of Sequences in the Classical Open-shop Scheduling Problem. 10th International Workshop on Multimedia Signal Processing and Transactions, Chonbuk National University, Korea, July 21-22, 2008.
- Talk: Balanced Sequences in Just-in-time Production and Fair House of Representatives. NMS Day, May 14, 2007.
- Talk: JIT Sequencing for Mixed-model Production Systems. UMD-FMA-Germany, November 20, 2006.
- Talk: Absolute Maximum Deviation Just-in-time Sequencing Problem for Mixed-model Production Systems. Seminar on Mathematical Sciences and its Applications, CDM-TU and NMS, September 20-21, 2006.
- Participation: Int'l Workshop, Fraunhofer Institut Techno–und Wirtschaftsmathematik (ITWM), UKL, Germany, September 14-15, 2006.
- Participation: Summer School "Mathematics International", UKL-FMA-Germany, September 1-30, 2006.
- Invited talk: Real-world Problem Selection and Solution Strategy. Seminar on Research Techniques in Mathematics, Janamaitri Multiple Campus, Kathmandu, July 8, 2006.
- Talk: Potentially Optimal Sequence-sets in Shop Problems. DIMACS-RUTCOR Seminar, Rutgers - The State University of New Jersey, USA, June 25, 2003.
- Talk: Mathematics in Industry: Modeling, Algorithms and Complexity. Seminar on Applicable Mathematics, CDM-TU, September 18-19, 2002.
- Participation: Intl Conference and Instructional Workshop of Industrial Mathematics, Bombay, 2-9 December 2002.
- Talk: On Algebraic Structures in Shop Scheduling Problems, the Super Sequence Group. UMD-FMA, Germany, February 22, 2001.

- Scientific International Webinar (Presented/Participated): total **35+**
  - Session chair: Fifth International Conference on Emerging Trends in Mathematical Sciences & Computing (IEMSC-24), 2nd - 4th February, 2024
  - Participation: Alumni Workshop - Management and Funding of International Cooperation Projects, DAAD Regional Office New Delhi, April 27-28, 2023.
  - Panelist: Research Opportunities in Data Science & Mathematics, Webex, organized by DAAD, February 17, 2022.
  - Session chair: Fourth International Conference on Emerging Trends in Mathematical Sciences & Computing (IEMSC-23) (Keynote speaker: FIELDS MEDALIST 2022: Maryna Viazovska).
  - Participation: Mathematics in Industry: Challenges and Frontiers, Office of International Affairs (OIA), The Maharaja Sayajirao University, Baroda, India, June 3, 2020.
  - Participation: Focusing on Mathematical Models & Analysis of COVID-19 Crisis, Office of International Affairs, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India and Lappeenranta University of Technology, Finland, June 17-18, 2020.
  - Participation: 2nd Intl Day of Mathematics, organized by Bangladesh Mathematical Society (BMS), March 14, 2021.
  - Talk: International Alumni event ("DAAD alumni work despite/defies Corona", organized by ADIT: Info talk on - NEGAAS and DAAD-Alumni Activities, May 28, 2021; June 11, 2021).
  - Participation: COVID-19 and Public Health Crises: Updates and Appeals from Nepal, Initiated by the Commission for Educational Exchange between the United States and Nepal and by the Fulbright Alumni Association of Nepal (also co-sponsored by NEGAAS), June 8, 2021.
  - Participation: Intl Symposium on Locational Decisions (ISOLDE XV), University of Wuppertal, Germany, 5-9 July 2021.

- Participation: 5th International Conference on Dynamics of Disasters, DOD 2021, Greece, July 16-18, 2021.
- Participation: DAAD web session on SDG Partnerships 2022-2025, DAAD Regional Office, New Delhi, 3 Aug 2021.
- Participation: Ongoing Humboldt New Mobility Conference, organized by AvH, September 13-14, 2021.
- Participation: DAAD online meeting - Connecting Germany and South Asia - The Future of Higher Education and Research Cooperation, October 18-22, 2021.
- Talk: Scientific Models to Optimize Traffic Congestion in Emergency Management, Virtual Workshop on Managing Disaster Risk - A Way to Sustainability, NEGAAS, November 21-22, 2021.
- Invited talk: Flow Models to Optimize Traffic Congestion in Emergency Planning, 22nd International Mathematics Conference, Bangladesh Mathematical Society (BMS), December 10-11, 2021.
- Participation: One World Optimization Seminar (OWOS), organized by Radu Ioan Boţ (University of Vienna), Shoham Sabach (Technion - Israel Institute of Technology Haifa) and Mathias Staudigl (Maastricht University) (June 1, 2020; June 8, 2020; June 15, 2020; June 22, 2020; June 29, 2020; July 6, 2020; July 13, 2020; July 20, 2020; July 27, 2020; September 7, 2020; September 14, 2020; September 21, 2020; September 28, 2020; November 17, 2020; April 12, 2021; April 19, 2021; May 3. 2021; May 10, 2021; May 24, 2021; June 14, 2021; June 28,2021).
- Participation: Annual Meeting of the Alexander von Humboldt Foundation, Berlin, Germany, June 24-25, 2020.
- Participation: Web of Science webinar: Supporting COVID-19 Research Efforts: How to Make Your Search Strategies More Effective and Efficient? 25 June 2020.
- Participation: Sudoku- Fun and Serious Mathematics, Office of International Affairs, The Maharaja Sayajirao University of Baroda, India and TU Eindhoven, The Netherlands, July 3, 2020.
- Participation: Operations Research Tools to COVID-19 for Sustainable Future, ORSN, July 11, 2020.
- Invited speaker and participation: IFORS Global Webinars (ALIO, July 29, 2020; APORS November 30, 2020; EURO, September 30, 2020).
- Participation: DAAD-Freundeskreis International Language Café, Heidelburg, Germany, August 1, 2020.
- Invited talk: Network Optimization Techniques for Efficient Emergency Planning, Intl Webinar on Role of Applied Sciences in Industry and Engineering, Department of Mathematics, Osmania University, Hyderabad, 2-5 May 2020.
- Session chair and participation: International Webinar on Recent Advances in Pure and Applied Mathematics (RAPAM-2020), Department of Mathematics, Kurseong College, Darjeeling, August 24-25.
- Webinar: DAAD Information Session (Tribhuvan University - Study and Research in Germany, August 28, 2020), conducted by DAAD India.
- Participation: Merging Dynamics with Data - A Mathematical Perspective on Climate Science", Institute of Climate Change Research, The Maharaja Sayajirao University of Baroda, August 29, 31, September 5, 2020.
- Invited talk: Optimization Methods for Efficient Evacuation Planning, Intl Conference on Computational Sciences-Modelling, Computing and Soft Computing (CSMCS-2020), NIT, Calicut, India, Sept 10-12.
- Panelist: Pre-APORS Conference 2020 OR - Continuing Relevance in Challenging Times, September 23-25, 2020, organized for APORS by the OR Society of the Philippines (ORSP).
- Invited talk: Network Flow Models and Algorithms with Emergency Location and Logistics; IFORS Global Webinar Series, O.R. in the Asia Pacific: Recent Trends and Practices, September 30, 2020.
- Participation: DAAD online meet, Connecting Germany and South Asia–Fostering Partnerships in Higher Education, DAAD New Delhi in association with DAAD Bonn Section P24 – Cooperation Projects and University Grants Commission (UGC), Govt. of India, October 29-30, 2020.
- Participation: DAAD Alumni Program, DAAD South Asian Regional Office New Delhi, India, November 6, 2020.
- Invited plenary speaker: Quickest Flow Improvement with Network Reconfiguration, MINDANAWAN MATH-STAT International Webcon (Strengthening Mathematical and Statistical Competencies through Convergence in the New Normal), MSU-IIT, Mindanao, Central University, Mathematical Society and Southern Society of Theoretical and Applied Statistics at Philippines, November 4, 11 and 18, 2020.
- Participation: Webex, Transnational Education - Insights into the international discourse and global trends, organized by DAAD regional office New Delhi, November 18, 2020.
- Invited plenary speaker and international advisor: Flow Improvement Strategy Using Lane Reversals on Evacuation Network, February 5-7, Calcutta, India.

- Co-presentations at Physical/Virtual Conferences (**75+**)

1. With I.M. Adhikari

(a) Quickest Transshipment in Integrated Network Topology, In First International Electronic Conference on Algorithms (IOCA-2021), September 27-10 October 2021. **Best Paper Award**.

(b) Time Minimization Aspect on the Transit-based Evacuation System, 2nd Intl Conference on Emerging Trends in Mathematical Sciences and Computing (IEMSC-2021), Society for Data Science, Institute of Engineering and Management and University of Engineering and Management, Kolkata, 5-7 February. **Best Paper Award**.

(c) Evacuation Optimization in an Integrated Network Topology, CSMCS-2020, NIT, Calicut, India, Sept 10-12.

(d) Evacuation Optimization with Minimum Clearance time, First Intl Conference on Applied Mathematics in Science & Engineering (AMSE-2019), ITER, NIT, Odisha, India, October 24-26.

(e) Minimum Clearance Time with Earliest Arrival Pattern for Transit-based Evacuation, Intl Conference on Applications of Mathematics to Nonlinear Sciences (ANMA-2019), organized by NMS, ANMA, TU & Kathmnadu University, Pokhara, Nepal, June 27-30.

(f) Evacuation Planning Problems on Transit-based Networks, Modern Algebraic Geometry Conference, Silkroad Mathematics Center, China, July 23-26, 2019.

(g) An Insight on the Evacuation Planning Optimization Problems on Transit-based System, APORS-2018 on Operation Research and Development, August 6-9, Kathmandu.

(h) Some Aspects on Transit Dependent Evacuation Planning, Emergency Management Research Workshop, Optimization Models for Disaster Resilience in Nepal, organized by Lancaster University, UK and CDM-TU, September 1-2, 2017, Kathmandu.

(i) Transit Dependent Vehicles on Evacuation Planning, National Conference on History and Recent Trends of Mathematics (NCHRTM-17), Department of Mathematics, Balmeeki Campus, Nepal Sanskrit University, TU, KU and NMS, June 2-4, 2017.

(j) Transit Dependent Evacuation Planning, Workshop on Bilevel Optimization, Research Group Linkage Program of the AvH, February 28- March 7, 2017.

(k) Dominance Vehicle Routine in Transit Dependent Evacuation Scenario, National Conference on Mathematics and Its Applications (NCMA-17), NMS, January 11-13, 2017.

(l) Facility Location as A Basic Component of Evacuation Planning, Southwest-workshop, UKL, and Fraunhofer Institute for Industrial Mathematics ITWM, Germany, October 28, 2016.

(m) Meaningfulness of OR Models and Solution Strategies for Emergency Planning, Mathematics and Science Research Colloquium, Mindanao State University, IIT, Philippines, August 17, 2016.

(n) Transit Based Optimization for Evacuation Planning, International Conference on Applications of Mathematics to Nonlinear Sciences (AMNS-16), organized by NMS, ANMA, CDM-TU and KU, May 26-29, 2016, Kathmandu.

2. With S.P. Gupta and U. Pyakurel

(a) Quickest Multi-Commodity Partial Contraflow Problem with Asymmetric Transit Times, Intl Conference on Emerging Trends in Mathematical Sciences and Computing (IEMSC-2022), KolKata, India, February 4-6. **Best paper winner.**

(b) An Approximate Solution for Quickest Multi-Commodity Contraflow with Non-Symmetric Travel Times, AMSE-2022, Bhubaneswar, Odisha, India, March 24-26.

(c) Generalized Multi-Commodity Contraflow Problem on Lossy Network, IEMSC-2021, KolKata, February 5-7.

(d) Dynamic Multi-commodity Contraflow Problem with Asymmetric Transit Times, Webinar on International Conference in Dynamics of Disasters (DOD-2021) at Kalamata, Greece, July 16-18.

(e) An FPTAS for Continuous Quickest Multi-Commodity Flow Over Time Problem with Partial Lane Reversals, RAPAM-2020, Kurseong College, Darjeeling, India, August 24-25.

(f) Approximation Algorithm for Quickest Multi-Commodity Partial Contraflow Problem, CSMCS-2020, NIT, Calicut, Kerala, India, September 10-12.

(g) Models and Algorithms for Flow Over Time Problems, Applied Mathematics in Science and Engineering, Bhubaneswar, Odisha, India, Oct 24-26, 2019.

(h) Flow Dependent Transit Times Dynamic Flow for Evacuation Planning, APORS-2018, Kathmandu, August 6-9.

3. Talk (with S.P. Gupta): Multi-commodity Contraflow Problem on Lossy Network with Asymmetric Transit Times, IOCA-2021, 27 September- 10 October.

4. With H.N. Nath

(a) Quickest FlowLoc Problem, CSMCS 2020, Department of Mathematics, National Institute of Technology Calicut, India, September 10-12.

(b) A Path Saving Strategy with Arc Reversals for Evacuation Planning, International Conference on Recent Advances in Informatics, Communication, Management, Health & Applied Sciences (RAICMHAS-2019), Brainware University, Kokata, India, February 2–4.

(c) A Bilevel Programming Approach to Save a Path Maximizing the Dynamic Flow with Lane Reversals for Evacuation Planning, 4th Intl Conference on Dynamics of Disasters (DOD 2019), Kalamata, July 1–5.

(d) Network Flow Approach for Computing Optimal Sink Location in Evacuation Planning. 2nd International Conference on Advances in CDM-TU, December 23-24, 2018.

(e) Identification of Optimal Pick-Up Locations with Their Demands in Evacuation Planning of Transit-Dependent Population, NCMA-2017, Chitwan, Nepal, January 11–13, 2017.

(f) Meaningfulness of OR Models and Solution Strategies for Emergency Planning, Mathematics and Statistics Research Colloquium, Mindanao State University, IIT, Philippines, 17 August, 2016.

5. With R.C. Dhungana

   (a) Contraflow Problems with Fixed Switching Costs, The Second Intl Conference on Applications of Mathematics to Nonlinear Sciences (AMNS-2019), Pokhara, Nepal, June 27-30.

   (b) Abstract FlowLoc Problems for Evacuation Planning, Recent Advances in Informatics, Communication, Management, Health and Applied Sciences (RAICMHAS-2019), Brainware University, Kolkata, February, 2-4.

   (c) FlowLoc Problems in Evacuation Network, APORS-2018, August 6-9.

6. Talk (with R.C. Dhungana and U. Pyakurel): Abstract Contraflow for Evacuation Planning, Workshop for UK-Nepal Cooperation in Emergency Management Research, organized by Lancaster University, UK and CDM-TU, September 1-2, 2017, Nepal.

7. With S. Wagle

   (a) Maximum FlowLoc on Two Terminal Network with intermediate Storage, AMSE-2022, Bhubansewar, India, 24-26 March.

   (b) Temporally Repeated Maximum Dynamic FlowLoc with Intermediate Storage, Seminar on Transportation Network for Emergency Planning and Logistic Support, CDM-TU, 28-29 May 2022.

   (c) Maximum FlowLoc with Excess Storage, International Online Conference on Applied Mathematics (IOCAM-2022), Fez, Morocco, June 1-3.

   (d) Lexicographic Flow with Intermediate Storage for Evacuation Planning, Workshop on Managing Disaster Risk: A Way to Sustainability, PMD (Program Migration and Disapora) project, NEGAAS, November 21-22, 2021.

   (e) Prioritized Continuous Dynamic Contraflow on Multi-terminal Network, International Webinar on Recent Advances in Pure and Applied Mathematics (RAPAM 2020), Kurseong, India, 24-25 August.

8. With B.P. Bangeni

   (a) Cost Minimization Flow Model with Uncertainty in Arc Capacities, AMSE-2022, Bhubaneswar, March 24-26.

   (b) Flow Dynamics in Continuous-time with Average Arc Capacities, IEMSC-2022, Kolkata, India, February 4-6.

   (c) A Brief Survey on Dynamic Network Flows in Continuous-time Model, IEMSC-2021, Kolkata, February 5-7.

9. With M.C. Adhikari and U. Pyakurel

   (a) Maximum Network Flow with Intermediate Storage in Lossy Network, AMSE-2022, Center for Data Science (ITER), India, March 24-26. **Best paper winner**.

   (b) Intermediate Storage: A Flow Maximization Technique to the Generalized Maximum Flow Problem, Seminar on Transportation Network Optimization for Emergency Planning and Logistic Support, CDM-TU and TUFB, 28-29 May 2022.

   (c) Maximum Network Flows and Lexicographic Improvement, Seminar on Network Flow Models on Transportation Optimization for Emergency Planning, CDM-TU and TUFB, January 17, 2022.

   (d) Prioritized Evacuation with Intermediate Location Planning, Webinar on Managing Disaster Risk: A Way to Sustainability, NEGAAS- Programme Migration and Diaspora (PMD), November 21-22, 2021, Kathmandu.

10. With D. B. Amagain and U. Pyakurel

    (a) Vehicle Routing and Scheduling in Emergency Logistics Support, Seminar on Transportation Network Optimization for Emergency Planning and Logistic Support, CDM-TU and TUFB, May 28,29, 2022.

    (b) Facility Location in Emergency Planning, AMSE-2022, Center for Data Science (ITER), India, March 24-26.

    (c) International Conference on Emerging Trends in Mathematical Sciences and Computing, Department of Basic Science and Humanities, Institute of Engineering and Management, Kolkota, India, February 05-07, 2021.

11. With D.P. Khanal, U. Pyakurel and others

    (a) Prioritized Maximum Dynamic Multi-commodity Flow Problem, International Conference on Dynamics of Disaster (DOD 2023), Athens Greece, July 3-6.

    (b) Non-existence of Earliest Arrival Flow with Inflow-dependent Transit Times, APORS-2018, 6-9 August, Kathmandu.

(c) Approximation to Quickest Multi-commodity Contraflow Over Time with Length Bound, RAPAM 2020, August 24-25.

(d) Length Bound Approximation to Quickest Multi-commodity Contraflow Problem, CSMCS 2020, NIT, Kerala, India, September 10-12.

(e) Prioritized Multi-commodity Flow Model and Algorithm, International Symposium on Analytic Hierarchy Process (ISAHP2020), December 3-6.

(f) Efficient Algorithms for Abstract Flow with Partial Switching, DOD 2021, Athens Greece, July 16-18.

(g) Maximum Multi-commodity Flow with Proportional and Flow-Dependent Capacity Sharing, 1st Online Conference on Algorithms (IOCA2021), September 27- October 10, Germany.

(h) Multi-commodity Evacuation Planning with Intermediate Storage: A Max-Flow Problem, Universe Winter School on Optimization, Games and Markets, Chemnitz University of Technology, Germany, November 14-17, 2021.

(i) Prioritized Evacuation Planning with Multi-commodity Flow Model: A Quickest Flow Problem, Managing Disaster Risk: A Way to Sustainability, NEGAAS- Programme Migration & Diaspora (PDM), 21-22 Nov 2021.

(j) Multi-commodity Flow Transmission with Intermediate Storage by Flow-Dependent Capacity Sharing on Arcs, International Online Conference on Optimization ICOP22, Fez, Morocco, January 19-21.

(k) Route Based Evacuation in Asymmetric Contraflow Network with Flow Circulation at Destination, IOCAM-2022, Fez, Morocco, June 1-3.

List of Selected Publications
Prof. Dr. Tanka Nath Dhamala

1. Tanka Nath Dhamala, Mohan Chandra Adhikari, Durga Prasad Khanal and Urmila Pyakurel (2023), Generalized Maximum Flow over Time with Intermediate Storage, Annals of Operations Research, https://doi.org/10.1007/s10479-023-05773-w. **Q1; H-Index 118**

2. Hari Nandan Nath, Tanka Nath Dhamala and Stephan Demmpe (2023), Saving a Path Minimizing Egress Time of a Dynamic Contraflow: A Bi-Objective Programming Approach, OPSEARCH, https://doi.org/10.1007/s12597-023-00690-9. **Q2; H-Index 26**

3. Tanka Nath Dhamala, Sachin Wagle, Urmila Pyakurel (2023), FlowLoc Problem with Maximum Excess Flow, Journal of Management and Optimization (JIMO). **Q3; H-Index 36**

4. Shiva Prakash Gupta, Urmila Pyakurel and Tanka Nath Dhamala (2023), Multi-Commodity Flow Problem on Lossy Network with Partial Lane Reversals, Annals of Operations Research (ANOR), DOI https://doi.org/10.1007/s10479-023-05210-y. **Q1; H-Index 118**

5. Urmila Pyakurel, Durga Prasad Khanal and Tanka Nath Dhamala (2023), Abstract Network Flow with Intermediate Storage for Evacuation Planning, European Journal of Operations Research (EJOR), 305(3), 1178-1193, doi.org/10.1016/j.ejor.2022.06.054. **Q1; H-Index 288**

6. Urmila Pyakurel, Hari Nandan Nath and Tanka Nath Dhamala (2019), Partial Contraflow with Path Reversals for Evacuation Planning, *Annals of Operations Research* (ANOR), doi: 10.1007/s10479-018-3031-8, 283 (1-2), 591-612. **Q1; H-Index 118**

7. Urmila Pyakurel, Hari Nandan Nath and Tanka Nath Dhamala (2018), Efficient Contraflow Algorithms for Quickest Evacuation Planning, *Science China Mathematics*, 61(11), 2079-2100, doi: 10.1007/s11425-017-9264-3. **Q1; H-Index 40**

8. Urmila Pyakurel, Tanka Nath Dhamala and Stephan Dempe (2017), Efficient Continuous Contraflow Algorithms for Evacuation Planning Problems, *Annals of Operations Research*, (ANOR) 254 (1 & 2), 335-364, doi: 10.1007/s10479-017-2427-1. **Q1; H-Index 118**

9. Urmila Pyakurel and Tanka Nath Dhamala (2017), Continuous Dynamic Contraflow Approach for Evacuation Planning, *Annals of Operations Research (ANOR)*, 253(1), 1-26, doi: 10.1007/s10479-016-2302-5. **Q1; H-Index 118**

10. Micheal Andresen and Tanka Nath Dhamala (2012), New Algorithms and Complexity Status of the Reducibility Problem of Sequences in Open Shop Scheduling Minimizing the Makespan, *Annals of Operations Research (ANOR)*, 196(1), doi: 10.1007/s10479-012-1075-8. **Q1; H-Index 118**

11. Urmila Pyakurel, Hari Nandan Nath, Stephan Dempe and Tanka Nath Dhamala (2019), Efficient Dynamic Flow Algorithms for Evacuation Planning Problems with Partial Lane Reversal, *Mathematics, Special Issue - Advances and Novel Approaches in Discrete Optimization*, 7(10), 993, doi.org/10.3390/math7100993. **Q2; H-Index 55**

12. Tanka Nath Dhamala, Gyan Bahadur Thapa and Hong-Nian Yu (2012), An Efficient Frontier for Sum Deviation JIT Sequencing Problem in Mixed-Model Systems via Apportionment, *International Journal of Automation and Computing*, 9(1), 87-97, https://doi.org/10.1007/s11633-012-0620-x. **Q2; H-Index 46**

13. Hari Nandan Nath, Urmila Pyakurel, Tanka Nath Dhamala and Stephan Dempe (2021), Dynamic Network Flow Location Models and Algorithms for Quickest Evacuation Planning, *Journal of Industrial and Management Optimization (JIMO)*, 17(5) : 2943-2970 doi: 10.3934/jimo.2020102. **Q3; H-Index 36**

14. Urmila Pyakurel and Tanka Nath Dhamala (2017), Evacuation Planning by Earliest Arrival Contraflow, *Journal of Industrial and Management Optimization (JIMO)*, AIMS Journals, 13(1), 489-503,
doi: 10.3934/jimo.2016028. **Q3; H-Index 36**

15. Hari Nandan Nath, Stephan Dempe and Tanka Nath Dhamala (2021), A Bicriteria Approach for Saving a Path Maximizing Dynamic Contraflow, *Asian Pacific Journal of Operational Research (APJOR)*,
https://doi.org/10.1142/S0217595921500275. **Q3; H-Index 36**

List of All Publications
Prof. Dr. Tanka Nath Dhamala

- Books

1. Editors: S.R. Mishra, T.N. Dhamala, O.D. Makinde (2019), *Recent Trends in Applied Mathematics - Select Proceedings of AMSE 2019*, Publisher: Springer Nature Singapore, Pte Ltd. Singapore. DOI: https://doi.org/10.1007/978-981-15-9817-3; ISBN 978-981-15-9816-6
2. Tanka Nath Dhamala, Iswarmani Adhikari, Hari Nandahn Nath and Urmila Pyakurel (2018), *Meaningfulness of OR Models and Solution Strategies for Emergency Planning*, Book Chapter: Living with the Threat of Earthquakes, 175-194, Springer Natural Hazards, ISSN 2365-0656, 2365-0664; ISBN 978-3-319-68043-9, 978-3-319-68044-6 (eBook).
3. *Shop Scheduling Solution Spaces with Algebraic Characterizations* (2002), Shaker Verlag, Aachen, Germany, ISBN 3-8322-0291-9.

- Articles Published in Refereed Journals

1. Tanka Nath Dhamala, Mohan Chandra Adhikari, Durga Prasad Khanal and Urmila Pyakurel (2023), Generalized Maximum Flow over Time with Intermediate Storage, Annals of Operations Research, https://doi.org/10.1007/s10479-023-05773-w. **Q1; H-Index 118**
2. Shiva Prakash Gupta, Urmila Pyakurel, Tanka Nath Dhamala (2023), Optimal Reconfiguration of Network with Variant Transmission Times on Arcs, The Nepali Mathematical Sciences Report, 40(1-2), 11-33, https://doi.org/10.3126/nmsr.v40i1-2.61492. **zbMATH, Mathematical Reviews/MathSciNet, NepJOL**
3. Sachin Wagle, Urmila Pyakurel, Tanka Nath Dhamala, Prioritized Max-FlowLoc for Evacuation Planning, The Nepali Mathematical Sciences Report, 40(1-2), 106-119, https://doi.org/10.3126/nmsr.v40i1-2.61506. **zbMATH, Mathematical Reviews/MathSciNet, NepJOL**
4. Tanka Nath Dhamala and Anna Nagurney (2023), In Memoriam: Urmila Pyakurel (1980 - 2023), SN Operations Research Forum, 4:93, https://doi.org/10.1007/s43069-023-00270-z. **Q3; H-Index 6**
5. Hari Nandan Nath, Tanka Nath Dhamala and Stephan Demmpe (2023), Saving a Path Minimizing Egress Time of a Dynamic Contraflow: A Bi-Objective Programming Approach, OPSEARCH, https://doi.org/10.1007/s12597-023-00690-9. **Q2; H-Index 26**
6. Tanka Nath Dhamala, Sachin Wagle and Urmila Pyakurel (2023), FlowLoc Problem with Maximum Excess Flow, Journal of Management and Optimization (JIMO), 19(12): 8851-8870. Doi: 10.3934/jimo.2023064. **Q3; H-Index 36**
7. Shiva Prakash Gupta, Urmila Pyakurel and Tanka Nath Dhamala (2023), Multi-Commodity Flow Problem on Lossy Network with Partial Lane Reversals, Annals of Operations Research (ANOR), DOI https://doi.org/10.1007/s10479-023-05210-y. **Q1; H-Index 118**
8. Durga Prasad Khanal, Urmila Pyakurel, Tanka Nath Dhamala, Stephan Dempe (2022), Abstract Temporally Repeated Flow with Intermediate Storage, The Nepali Mathematical Sciences Report, 39(2), 67-78, DOI: https://doi.org/10.3126/nmsr.v39i2.51695. **zbMATH, Mathematical Reviews/MathSciNet, NepJOL**
9. Durga Prasad Khanal, Urmila Pyakurel, Tanka Nath Dhamala and Stephan Dempe (2022), Efficient Algorithms for Abstract Flow with Partial Switching, Dynamics of Disaster (DOD), Special Issue, Operations Research Forum, Springer Nature 3:55(1-17), https://doi.org/10.1007/s43069-022-00168-2. **Q3; H-Index 6**
10. Urmila Pyakurel, Durga Prasad Khanal and Tanka Nath Dhamala (2022), Abstract Network Flow with Intermediate Storage for Evacuation Planning, European Journal of Operations Research (EJOR), Vol 305(3), 1178-1193, doi.org/10.1016/j.ejor.2022.06.054. **Q1; H-Index 288**
11. Hari Nandan Nath, Urmila Pyakurel, Stephan Dempe and Tanka Nath Dhamala (2022), A Bilevel Programming Approach to Save a Path Maximizing the Dynamic Flow with Lane Reversals for Evacuation Planning, Journal of Bangladesh Mathematical Society (GANIT), 42(1) (2022), https://doi.org/10.3329/ganit.v42i1.60997. **MathSciNet, Ebsco, CrossRef**
12. Shiva Prakash Gupta and Tanka Nath Dhamala (2022), An FPTAS for Quickest Multi-Commodity Contraflow Problem with Asymmetric Transit Times, Journal of Institute of Science and Technology (JIST). **NepJOL**
13. Shiva Prakash Gupta, Urmila Pyakurel and Tanka Nath Dhamala (2022), Dynamic Multi-Commodity Contraflow Problem with Asymmetric Transit Times, *Journal of Applied Mathematics, Hindawi Publications*, Volume 2022, Article ID 3697141, https://doi.org/10.1155/2022/3697141. **Q3; H-Index 52**
14. Badri Prasad Pangeni and Tanka Nath Dhamala (2021), A Brief Survey on Dynamic Network Flows in Continuous-time Model, *Journal of Mathematical Sciences & Computational Mathematics*, Vol 2 (4), 467-477(11), Society for Makers, Artists, Researchers and Technologists, https://doi.org/10.15864/jmscm.2401. **SCOPUS**

15. Hari Nandan Nath, Urmila Pyakurel and Tanka Nath Dhamala, Stephan Dempe (2021), Dynamic Network Flow Location Models and Algorithms for Quickest Evacuation Planning, *Journal of Industrial and Management Optimization (JIMO)*, 17(5): 2943-2970 doi: 10.3934/jimo.2020102. **Q3; H-Index 36**

16. Durga Prasad Khanal, Urmila Pyakurel and Tanka Nath Dhamala (2021), Maximum Multi-Commodity Flow With Intermediate Storage, *Mathematical Problems in Engineering, Hindawi Publications*, Volume 2021, Article ID 5063207, https://doi.org/10.1155/2021/5063207. **Q2; H-Index 78**

17. Dipak Babu Amgain and Tanka Nath Dhamala (2021), Quckest Flow Algorithms with Time-varying Attributes, *Journal of Institute of Science and Technology*, Tribhuvan University, 26(1), 63-73, https://doi.org/10.3126/jist.v26i1.37826. **NepJOL**

18. Hari Nandan Nath, Stephan Dempe and Tanka Nath Dhamala (2021), A Bicriteria Approach for Saving a Path Maximizing Dynamic Contraflow, *Asian Pacific Journal of Operational Research (APJOR)*, 2150027, doi: 10.1142/S0217595921500275. **Q3; H-Index 36**

19. Hari Nandan Nath, Urmila Pyakurel and Tanka Nath Dhamala (2021), Network Reconfiguration with Orientation Dependent Transit Times, *International Journal of Mathematics and Mathematical Sciences, Hindawi*, Volume 2021, Article ID 6613622, https://doi.org/10.1155/2021/6613622. **Q4; H-Index 41**

20. Shiva Prakash Gupta, Urmila Pyakurel and Tanka Nath Dhamala (2021), Generalized Dynamic Contraflow with Non-Symmetric Transit Times, *American Journal of Computational and Applied Mathematics*, Scientific & Academic Publishing, 11(1), 12-17, doi: 10.5923/j.ajcam.20211101.02. **WorldCat, CrossRef, EBSCO A-to-Z, CNKI, zbMATH**

21. Shiva Prakash Gupta, Urmila Pyakurel and Tanka Nath Dhamala (2021), Network Flows with Arc Reversals and Non-Symmetric Transit Times, *American Journal of Mathematics and Statistics*, 11(2), 27-33, doi:10.5923/j.ajms.20211102.01. **WorldCat, CrossRef, Academickeys, EBSCO A-to-Z, CNKI, zbMATH**

22. Urmila Pyakurel, Shiva Prakash Gupta, Durga Prasad Khanal and Tanka Nath Dhamala (2020), Efficient Algorithms on Multi-Commodity Flow Over Time with Partial Lane Reversals, *International Journal of Mathematics and Mathematical Sciences, Hindawi*, Volume 2020, Article ID 2676378, https://doi.org/10.1155/2020/2676378. **Q4; H-Index 41**

23. Shiva Prakash Gupta, Durga Prasad Khanal, Urmila Pyakurel and Tanka Nath Dhamala (2020), Approximate Algorithms for Continuous-Time Quickest Multi-Commodity Contraflow Problem, *The Nepali Mathematical Sciences Report*, 37 (1 & 2), 30-46, https://doi.org/10.3126/nmsr.v37i1-2.34068. **zbMATH, Mathematical Reviews/ MathSciNet, NepJOL**

24. Iswar Mani Adhikari and Tanka Nath Dhamala (2020), Minimum Clearance Time on Prioritized Integrated Evacuation Network, *American Journal of Applied Mathematics*, 8(4), 207-215, https://doi.org/10.3126/nmsr.v37i1-2.34063. **WorldCat, CrossRef, Academickeys, EZB**

25. Tanka Nath Dhamala, Shiva Prakash Gupta, Durga Prasad Khanal and Urmila Pyakurel (2020), Quickest Multi-Commodity Flow Over Time with Partial Lane Reversals, *Journal of Mathematics and Statistics*, 16(1), 198-211.**Crossref, Elsevier, Mathematical Reviews, MathSciNet**

26. Iswar Mani Adhikari and Tanka Nath Dhamala (2020), On the Transit-based Evacuation Strategies in an Integrated Network Topology, *The Nepali Mathematical Sciences Report* 37 (1 & 2), 1-13.**zbMATH, Mathematical Reviews/ MathSciNet, NepJOL**

27. Iswar Mani Adhikari, Urmila Pyakurel and Tanka Nath Dhamala (2020), An Integrated Solution Approach for the Time Minimization Evacuation Planning Problem, *International Journal of Operations Research*, Taiwan, 17(1), 27-39, doi: 10.6886/IJOR. **Mathematical Reviews, EBSCOhost, Zentralblatt MATH**

28. Ram Chandra Dhungana and Tanka Nath Dhamala (2020), Flow Improvement in Evacuation Planning with Budget Constrained Switching Costs, *International Journal of Mathematics and Mathematical Sciences*, Hindawi, Volume 2020, Article ID 1605806, https://doi.org/10.1155/2020/1605806. **Q4; H-Index 41**

29. Urmila Pyakurel, Hari Nandan Nath and Tanka Nath Dhamala (2019), Partial Contraflow with Path Reversals for Evacuation Planning, *Annals of Operations Research* (ANOR), doi: 10.1007/s10479-018-3031-8, 283 (1-2), 591-612. **Q1; H-Index 118**

30. Urmila Pyakurel, Hari Nandan Nath, Stephan Dempe and Tanka Nath Dhamala (2019), Efficient Dynamic Flow Algorithms for Evacuation Planning Problems with Partial Lane Reversal, *Mathematics, Special Issue - Advances and Novel Approaches in Discrete Optimization*, 7(10), 993, doi.org/10.3390/math7100993. **Q2; H-Index 55**

31. Ram Chandra Dhungana and Tanka Nath Dhamala (2019), Maximum FlowLoc Problems with Network Reconfiguration, *International Journal of Operations Research (IJOR-TW)*, 16(1), 13-26, doi: 10.6886/IJOR. **Mathematical Reviews, EBSCOhost, Zentralblatt MATH**

32. Hari Nandan Nath, Urmila Pyakurel, Stephan Dempe, Tanka Nath Dhamala (2019), A Path Saving Strategy with Arc Reversals for Evacuation Planning, *International Journal of Innovative Knowledge Concepts*, 7(1), 160-165.

33. Santosh Gautam, Urmila Pyakurel and Tanka Nath Dhamala (2019), Generalized Dynamic Flow on Lossy Network, *Journal of Institute of Engineering*, Tribhuvan University, 15(2), 171-182, https://doi.org/10.3126/jie.v15i2.27664. **NepJOL**

34. Durga Prasad Khanal, Shiva Prakash Gupta, Urmila Pyakurel and Tanka Nath Dhamala (2019), An Approximation for General Transit Time Function, *International Journal of Operational Research, Nepal (IJORN)*, 8(1), 13-25. **American Mathematical Society (AMS)**

35. Hari Nandan Nath and Tanka Nath Dhamala (2018), Network Flow Approach for Locating Optimal Sink in Evacuation Planning, *International Journal of Operational Research Society (IJOR-TW)*, 15(4), 175-185, doi: 10.6886/IJOR. **Mathematical Reviews, EBSCOhost, Zentralblatt MATH**

36. Ram Chandra Dhungana and Tanka Nath Dhamala (2018), Abstract Earliest Arrival Transshipment with Network Reconfiguration, *The Nepali Mathematical Sciences Report*, 35(1-2), 1-9. **zbMATH, Mathematical Reviews/MathSciNet, NepJOL**

37. Durga Prasad Khanal, Urmila Pyakurel and Tanka Nath Dhamala (2018), Flow Over Time Problem with Inflow-Dependent Transit Times, *Journal of the Institute of Science and Technology*, Tribhuvan University, 23, 49-56, https://doi.org/10.3126/jist.v23i1.22161. **NepJOL**

38. Tanka Nath Dhamala, Urmila Pyakurel and Stephan Dempe (2018), A Critical Survey on the Network Optimization Algorithms for Evacuation Planning Problems, *International Journal of Operations Research (IJOR-TW)*, 15(3), 101-133, doi: 10.6886/IJOR.201809_15(3).0002. **Mathematical Reviews, EBSCOhost, Zentralblatt MATH**

39. Tanka Nath Dhamala and Iswar Mani Adhikari (2018), On Evacuation Planning Optimization Problems from Transit-based Perspective, *International Journal of Operations Research (IJOR-TW)*, 15(1), 29-47. **Mathematical Reviews, EBSCOhost, Zentralblatt MATH**

40. Urmila Pyakurel, Hari Nandan Nath and Tanka Nath Dhamala (2018), Efficient Contraflow Algorithms for Quickest Evacuation Planning, *Science China Mathematics*, 61(11), 2079-2100, doi: 10.1007/s11425-017-9264-3. **Q1; H-Index 40**

41. Ram Chandra Dhungana, Urmila Pyakurel and Tanka Nath Dhamala (2018), Abstract Contraflow Models and Solution Procedures for Evacuation Planning, *Journal of Mathematics Research*, 10(4), 89-100, doi: 10.5539/jmr.v10n4p89. **MathGuide, MathSciNet**

42. Urmila Pyakurel, Tanka Nath Dhamala and Stephan Dempe (2017), Efficient Continuous Contraflow Algorithms for Evacuation Planning Problems, *Annals of Operations Research*, (ANOR) 254(1 & 2), 335-364, doi: 10.1007/s10479-017-2427-1. **Q1; H-Index 118**

43. Urmila Pyakurel and Tanka Nath Dhamala (2017), Evacuation Planning by Earliest Arrival Contraflow, *Journal of Industrial and Management Optimization (JIMO)*, AIMS Journals, 13(1), 489-503, doi: 10.3934/jimo.2016028 . **Q3; H-Index 36**

44. Urmila Pyakurel and Tanka Nath Dhamala (2017), Continuous Dynamic Contraflow Approach for Evacuation Planning, *Annals of Operations Research (ANOR)*, 253(1), 1-26, doi: 10.1007/s10479-016-2302-5. **Q1; H-Index 118**

45. Urmila Pyakurel and Tanka Nath Dhamala (2016), Continuous Time Dynamic Contraflow Models and Algorithms, *Advances in Operations Research*, Hindawi, Volume 2016, Article ID 7902460, https://doi.org/10.1155/2016/7902460. **Q3; H-Index 19**

46. Tanka Nath Dhamala and Urmila Pyakurel (2016), Significance of Transportation Network Models in Emergency Planning of Urban Cities, *International Journal of Cities, People and Places*, 1(2), 58-76. **SLJOL**

47. Urmila Pyakurel, Marc Goerigk, Tanka Nath Dhamala and Horst W. Hamacher (2016), Transit Dependent Evacuation Planning for Kathmandu Valley: A Case Study, *International Journal of Operational Research, Nepal (IJORN)*, 5, 49-73. **American Mathematical Society (AMS)**

48. Urmila Pyakurel and Tanka Nath Dhamala (2015), Models and Algorithms on Contraflow Evacuation Planning Network Problems, *International Journal of Operations Research (IJOR-TW)*, 12(2), 36-46. **Mathematical Reviews, EBSCOhost, Zentralblatt MATH**

49. Ram Chandra Dhungana, Urmila Pyakurel, Shree Ram Khadka and Tanka Nath Dhamala (2015), Efficient Algorithm on Universally Maximum Contraflow, *International Journal of Operational Research, Nepal (IJORN)*, 4, 67-78. **American Mathematical Society (AMS)**

50. Tanka Nath Dhamala (2015), A Survey on Models and Algorithms for Discrete Evacuation Planning Network Problems, AIMS Journals, *Journal of Industrial and Management Optimization (JIMO)*, 11, 265-289, doi: 10.3934/jimo.2015.11.265. **Q3; H-Index 36**

51. Urmila Pyakurel, Tanka Nath Dhamala and Horst W. Hamacher (2014), Generalized Maximum Dynamic Contraflow on Lossy Network, *International Journal of Operational Research, Nepal (IJORN)*, 3, 27-44. **American Mathematical Society (AMS)**

52. Urmila Pyakurel and Tanka Nath Dhamala (2014), Earliest Arrival Contraflow Model for Evacuation Planning, *Neural, Parallel and Scientific Computations [CNLS-2013]* 22(3), 441-450. **SCOPUS**

53. Puja Bhatt and Tanka Nath Dhamala (2014), Scheduling Jobs to Minimize the Number of Late Jobs, *International Journal of Computer Applications (IJCA)*, January 2014. **Crossref, ISSN**

54. Tanka Nath Dhamala and Urmila Pyakurel (2013), Earliest Arrival Contraflow Problem on Series-Parallel Graphs, *International Journal of Operations Research (IJOR-TW)*, 10, 1-13. **Mathematical Reviews, EBSCOhost, Zentralblatt MATH**

55. Ram Krishna Dahal, Jagdish Bhatta and Tanka Nath Dhamala (2013), Performance Analysis of SHA-2 and SHA-3 Finalists, *International Journal on Cryptography and Information Security (IJCIS)*, 3(3). **EBSCO, ProQuest, Scilit, Cnki**

56. Tej Bahadur Shahi, Bikash Balami and Tanka Nath Dhamala (2013), Support Vector Machines Based Part of Speech Tagging for Nepali Text, *International Journal of Computer Applications*, 70(24), 38-42, doi: 10.5120/12217-8374. **Crossref, ISSN**

57. Teruaki Ohnishi, Shree Ram Khadka, Gustavo Hernández Sánchez and Tanka Nath Dhamala (2013), Environmental Attitude of Young Nepalese and its Comparison with the Attitude of Environmentally Developed Costa Ricans, *RISE International Journal of Sociology of Education*, 2, 26-50. **SCOPUS**

58. Micheal Andresen and Tanka Nath Dhamala (2012), New Algorithms and Complexity Status of the Reducibility Problem of Sequences in Open Shop Scheduling Minimizing the Makespan, *Annals of Operations Research (ANOR)*, 196(1), doi: 10.1007/s10479-012-1075-8. **Q1; H-Index 118**

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