RESUME

Pawan J. Lingras

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Education

Ph.D. in Computer Science (1991)	University of Regina, Regina, Saskatchewan, Canada, S4S 0A2
M.Sc. in Computer Science (1988)	
M.Sc. in Civil Engineering (1986)	
B. Tech., Civil Engineering (1984)	Indian Institute of Technology Bombay, Mumbai, India, 400076.

Academic and Research Work Experience *(Administrative positions listed separately)*

Professor: September 2002 to date **Associate Professor:** August 1998 to August 2002	Department of Mathematics and Computing Science Saint Mary's University, Nova Scotia, Canada, B3H3C3
Associate Professor: July 1994 to June 1998 **Assistant Professor:** July 1991 to June 1994	Department of Computer Science Algoma University, Sault Ste. Marie, Ontario, P6A 2G4
Visiting Professor: 2012	Indian Institute of Technology, Gandhinagar, India

UGC-India Scholar in residence at SRTM University, Nanded (2011)

Indian Statistical Institute, Kolkata (2011)

Shastri Indo-Canadian Institute Scholar (1997/98)

Administrative Contributions *(All at Saint Mary's University, Halifax, Canada)*

Founding Director September 2014 to date	M.Sc. in Computing and Data Analytics
Chair September 2004 to August 2007	Department of Mathematics and Computing Science
Coordinator September 2007 to December 2010	M.Sc. in Applied Science
Coordinator 2007/08, 2014	Computing Science and Business Administration
Director December 2006 to December 2010	Diploma in Business Administration and Computing Science The Gambia - A joint venture with SMU, University of the Gambia, QuantumNet Institute of Technology

Summary of List of Publications (http://cs.smu.ca/~pawan/research/lingrasListOfPublications.pdf)

Refereed Journal Articles	67
Refereed Book Chapters	12
Textbooks	3
Edited Books	2
Edited Volumes	15
Submitted to Journals for Publication	6
Refereed Conference Proceedings	135
Non-Refereed Conference Proceedings	9
Other Non-Refereed Publications	6
Total	**255**
Invited talks	**52**

Research Student Supervision (http://cs.smu.ca/~pawan/research/lingrasListOfStudents.pdf)

Post-doctoral students:	2
Ph.D. students (including two visiting scholars):	13
M.Sc. students:	122 (15 theses, 107 projects)
B.Sc. students (thesis option):	12
B.Sc. students (non-thesis option):	37
Total	**186**

- Supervised graduate students from three Canadian universities: Saint Mary's University, University of Regina, and Dalhousie University
- Co-supervised and co-supervising four visiting doctoral students from Egypt, China, and Tunisia.
- Served as the external examiner for doctoral theses from Dalhousie University, Singapore, Australia, and India; and M.Sc. theses from Acadia University, Wolfville, Nova Scotia, Lakehead University, Thunderbay, Ontario, Memorial University, Newfoundland and Labrador.

Research Grants (Pedagogical projects funded by SMU are listed separately)

(Details: http://cs.smu.ca/~pawan/research/lingrasResearchGrants.pdf)

Thematic Summary of Research Funding

Total research funding (Fundamental and Industry): $5M+

Fundamental research

- Recipient of NSERC Discovery grants for thirty-one years from April 1993 to March 2025 total NSERC award of $660,000
- A major beneficiary of Mitacs grants awards totaling $4.5M since 2016
- Several internal grants from Saint Mary's University totaling more than $25,000
- Theories and techniques: Clustering, prediction, classification, support vector machines, neural networks, genetic algorithms, soft computing, rough sets, fuzzy sets
- Applications: retail, text mining, engineering, finance, image processing
- More than 255 publications including refereed journal articles (67), refereed conference papers (135), edited volumes (15), and textbooks (3) - publication list is separately available.
- Supervised 186 research students (2 PDF, 13 Ph.D., 121 Master's, 49 UG)

Industry sponsored research

- Total funding since May 2015: $5M+
- Collaborated with seven other researchers
- Collaborated with thirty companies
- Four major funding agencies (Mitacs $4.5M, NSERC $660K, NRC-IRAP $115K, Invest Nova Scotia $345K)
- Collaborations with three SMU faculty members

International travel for collaborative research

- Funding from external entities for travel and accommodations: $34,000
- Four funding agencies
- Term positions at four institutions for research and teaching

Curriculum Development and Accreditation Activities

- Developed and implemented a M.Sc. in Computing and Data Analytics program from 2010/11 to date. It is the first professional graduate program in the Faculty of Science. Contributions include curriculum development, budgeting, communicating with the faculty, administration, financial services, industry, international recruiters, and preparation of the MPHEC proposal. The program has grown from 17 students in 2015/16 to 47 students in 2017/18. The enrollment in 2018/19 is expected to be 70 students – four-fold growth in four years. The program is well received by the industry with 100% employment rate in the last graduated cohort from 2016/17 before graduation.

- Initiated the proposal process of the Ph.D. in Applied Science program in Fall 2010. Contributions include identifying the process, getting approval from the Faculty of Council for preparation of the MPHEC proposal, putting together structure of the document, providing necessary statistical information that will make up a significant portion of the proposal.

- Coordinated the first comprehensive review of the M.Sc. in Applied Science program in 2009/10. The review process was very well received by the external reviewers. The result of the review is facilitating major changes to the program structure and delivery. The review also led to a recommendation from the external reviewers to develop and implement the Ph.D. in Applied Science program.

- Coordinated the concept document for the Ph.D. in Applied Science program and presented it to the Faculty of Science in 2008/09. Formulated the strategy for developing the Ph.D. program and embarked on the review of the M.Sc. in Applied Science program.

- As the Chair of the Department of Mathematics and Computing Science, participated in the accreditation of Computing Science programs by Canadian Information Processing Society in 2005.

- Chair of the Accreditation Committee of M.Sc. in Information Technology Management, Hong Kong Baptist University in 2006.

- Active participant in curriculum development of the Computing Science program at Saint Mary's University.

- Instrumental in getting the four-year B.Sc. program at Algoma University.

Classroom Teaching

- Have taught more than 120 courses since 1987 in Computing Science, Mathematics, and Applied Science at Saint Mary's University, Algoma University, and University of Regina.

- Have received above average teaching evaluations in most courses.

- Have taught at all four undergraduate levels, as well as at the graduate level.

- The range of courses includes: Introduction to Computing Science (I&II), Data Structures (I&II), Operating Systems, Principles of Programming Languages, Theoretical Computing Science (I&II), Artificial Intelligence, Data Mining, Information Retrieval, Discrete Mathematics, and Graduate Seminar.

- The list of programming languages includes: C, C++, Java, Pascal, Object Pascal, Lisp, Prolog, COBOL, FORTRAN, C#, and SQL. Also use scripting languages, such as PHP and Perl.

- First to use LIVE online teaching service at Saint Mary's University. Taught "Introduction to Computing Science" to high school teachers throughout Nova Scotia in 2006/07 and 2008/09. The delivery was very well received by the high school teachers.

- Used a wide variety of teaching methodologies, which include moderation through e-mail, LIVE online teaching, and collaborated teaching to ensure delivery of eight courses in the Gambia.

Computing Science Huskies

- Primary coach and cheerleader from 1999/2000 to 2010/11.
- The team won eight Atlantic Canadian Championships (1999-2000, 2002-2003, 2007-2010) and four runner-up positions (2001, 2004, 2005, 2006).
- Most first and second place finishes in Atlantic Canada.
- Advanced to the North Eastern North America regional finals for thirteen straight years (starting in 1998), becoming the only Canadian team east of Ontario to do so. The only other teams who made it to the regional finals in each of last eleven years are M.I.T. and Harvard.
- First Atlantic Canadian team to advance to the World Finals (Hawaii, 2002) by beating everyone except M.I.T. at the regional finals in November 2001.
- Organized all the practice sessions, including problem selection and evaluation process.
- Built a mentoring system for students from first year to final year.
- Accompanied students to most of the competitions.
- The training helped everyone reach their full potential. Some of the high quality programming talent managed to fit into the conventional university culture, and prosper in computing science.
- Designed and implemented an automated teaching evaluation system at Algoma University, when the University switched to new evaluation form. I developed the software and designed the statistical evaluation report in collaboration with the Quality of Teaching Committee. It was connected to the overall system by the System Administrator, George Townsend.

High School and International Outreach Activities

- **Hack-a-week:** Founded a week long app development competition for high school and university students
- **High School Programming Competition**: Organizer of 2002 and 2008 competitions, and active member in all ten years of the competition in various capacities.
- **High School Teacher Workshops**: Organized first two teacher workshops on computer programming in 2003 and 2004.
- **International outreach activities for student mobility and recruitment:** Hong Kong Baptist University, Vejle Business College, Denmark, University of Moratuwa, Ansal Institute of Technology, India, SIBER, India.
- **Director of Diploma in Business Computing in the Gambia:** Worked with Gambian partners to develop an appropriate curriculum; design program delivery based on an instructor/moderator model and put together instructor/moderator pairs from Canada (SMU & Acadia), the Gambia, USA, India, Taiwan, Sweden, and Denmark.

Projects in Support of Pedagogy

- Lead developer for the first iPhone pedagogical application at Saint Mary's University.
- Consultant for the Second Life project undertaken by the Division of Continuing Education.
- Multi-speaker ViaScribe: Supervised a team of three Saint Mary's University students (Tokuyo Mizuhara, Vagarro Willie, Chris Adams) that extended the class notes transcription software developed by the Liberated Learning Consortium for a conference environment. The extension was well received by the sponsors. However, we do not have the necessary hardware in the classroom to record multiple speakers at this time, so it is not in active use.
- NoteFinder: A search engine that works with the Liberated Learning's transcription service. The software works with key-phrases as well as keywords. It also creates an index of associated terms discussed during the entire course. (Designed the algorithm and supervised the implementation by: Jason Hines and Stuart

Crosby).

- Automated feedback system: The system allows students to submit feedback for presentations by their peers. The presenter sees a compiled version of the anonymous feedback. The feedback system was based on a feedback process practiced by one of the AAU Teaching Award Winners. Our automated system has been in use for five years in a graduate seminar course. The system was developed by two students, Ineacho Ogarro and Vagarro Willie, under my supervision.

Other Relevant Professional Experience

- NSERC Computer Science Evaluation Group member (2016/17, 2018/19, 2019/20)
- Editorial Board: Web Intelligence and Agent Systems: An International Journal (WIAS)
- Editorial Board: Transaction of Rough Sets, Springer publication
- Editorial Board: International Journal of General Systems
- General Chair of Rough Set conferences 2013 and 2024, NAFIPS 2022, AI/GI/VI 2015
- Co-chair: Second (2009), and Third (2011) Indian International Conferences on Artificial Intelligence.
- Associate Editor and Program Committee Co-chair: Second (2005), and Third (2007) Indian International Conferences on Artificial Intelligence.
- Program Co-chair: IEEE/WIC/ACM International Joint Conferences on Web Intelligence and Intelligent Agent Technology for 2008 and 2012.
- General Workshop Chair: Fifth IEEE International Conference on Data Mining 2005 and IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology for 2004 and 2005.
- General Tutorial Co-Chair: IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology for 2004 and 2005.
- Reviewer of several computing science journals including IEEE Transactions on Knowledge and Data Engineering, Pattern Recognition Letters, Information Sciences, International Journal of Intelligent Information Systems.
- Reviewer for NSERC grant applications

Awards and Scholarships

Textbook Author Association	Most promising textbook, 2018
Saint Mary's University	President's Award for Excellence in Research, 2016
Indian Society for Rough Sets	Distinguished service award, 2014
Saint Mary's University	Student Union: Faculty of Science, Excellence in Teaching, 2013
Saint Mary's University	Father William A. Stewart, S.J., University Medal for Excellence in Teaching, 2009
University of Regina.	Gerhard Herzberg Fellowships

Various merit scholarships from Government of Saskatchewan, Federal and State Governments in India

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Chronological Summary of Research Funding

Funding Agency	Funding Period	Funding Details	Funding Awarded
NSERC of Canada	April 2018 to March 2024	Individual Discovery Grant (Generalized sequential data mining using enhanced object representations based on preliminary clustering profiles) (Deferred twice - extended duration to 2027)	$204,000 ($34,000/year for 6 years)
Invest Nova Scotia	July 2024- February 2025	Productivity and Innovation Voucher Program Three R&D Projects with Wellnify.ai, Halifax Learning, Kardio Logistix	3*$15,000= $45,000
NRC-IRAP	June 2024 - February 2025	Science and Technology Assistance Program 1 project: Wellnify.ai	$5000*1=$5,000
Mitacs, Canada	June 2024 to October 2024	In collaboration with Indigenous Tech.AI Corporation Development to Support First Nations and Municipal Policing	$15,000 - includes industry contributions
Mitacs, Canada	May 2023 to October 2024	In collaboration with Nova Scotia Liquor Corporation Data summarization and visualization system for evidence-based decision making	$30,000 - includes industry contributions
Mitacs, Canada	June 2023 to October 2025	In collaboration with Kinduct Technologies Inc. Kinduct Platform Enhancement using Supervised and Unsupervised Learning	$120,000 - includes industry contributions
Mitacs, Canada	May 2024 to October 2028	Mitacs Internship to Accelerate Innovation - Innovating Retail Solutions for Telecom and Pharmacy Industries	$90,000 - includes industry contributions
Mitacs, Canada	Sept 2024 to Aug 2028	In collaboration with Citco (Halifax) Development of a Domain-Specific Q&A System for the Financial Services Industry	$180,000 - includes industry contributions
Mitacs, Canada	May 2024 to October 2028	In collaboration with Truverus Inc. Sentiment Analysis to Replace Rigid Surveys into Automated Adaptive Interviews	$180,000 - includes industry contributions
Mitacs, Canada	Jan 2024 to Aug 2025	In collaboration with SiftMed Inc. Enhancing Medical Data Analysis and Processing	$60,000 - includes industry contributions
Mitacs, Canada	Jan 2024 to Aug 2024	In collaboration with Adrigo Inc. Predictive Analytics for B2B SaaS Platform	$30,000 - includes industry contributions
Mitacs, Canada	May 2024 to Aug 2028	In collaboration with Kardio Diagnostix (IT41194) Unsupervised and Supervised Machine Learning Ensemble for Pediatric Cardiology Diagnostics	$120,000 - includes industry contributions
Mitacs, Canada	Jan 2024 to Aug 2024	In collaboration with Kardio Diagnostix (IT38334) Prescriptive Machine Learning in Pediatric Cardiology	$60,000 - includes industry contributions
Mitacs, Canada	Jan 2024 to Aug 2025	In collaboration with Insightwell Technologies Design and Deployment of a Generative AI Platform	$60,000 - includes industry contributions

Mitacs, Canada	Jan 2024 to Aug 2028	In collaboration with Artinus Consulting Inc. Artinus Cost-effective NLP solutions for digitization, translation, and insights of domain specific corpora	$133,333 - includes industry contributions Additional $80000 designated for Memorial University Total award $213,333
Mitacs, Canada	Sept 2023 to Nov 2023	Mitacs Globalink Research Award in collaboration with the Indo-Shastri Canadian Institute	$6000
Mitacs, Canada	June 2023 to October 2023	In collaboration with Forrest Green Solutions Ltd. Innovative Website and Web Application Development for Law Enforcement Mitacs-Business Strategy Internship	$15,000 - includes industry contributions
Mitacs, Canada	July 2023 to June 2025	In collaboration with Meraki IT Consulting Platform enhancement for government services using data analytics Mitacs-Business Strategy Internship	$135,000 - includes industry contributions
Mitacs, Canada	May 2023 to January 2024	In collaboration with Acuicy Product Development to Scale Low Carbon Business Intelligence Mitacs-Business Strategy Internship	$45,000 - includes industry contributions
Mitacs, Canada	October 2022 to June 2024	In collaboration with Nova Scotia Power DevOps of Descriptive and Predictive Analytics for Efficient Energy Supply and Work and Asset Management Mitacs-Business Strategy Internship	$150,000 - includes industry contributions
Mitacs, Canada	August 2022 to August 2023	In collaboration with Altudo. Website Design & Implementation, DevOps Automation and Business Process Automation Mitacs-Business Strategy Internship	$90,000 - includes industry contributions
Mitacs, Canada	July 2022 to November 2022	In collaboration with MightyIQ Inc. Prototype Intelligent ERP System for SMEs Mitacs-Business Strategy Internship	$30,000 - includes industry contributions
Mitacs, Canada	June 2022 to May 2023	In collaboration with AI Dynamics. Deployment, Testing and Enhancement of a Web-based Machine Learning platform Mitacs-Business Strategy Internship	$120,000 - includes industry contributions
Mitacs, Canada	May 2022 to September 2022	In collaboration with Nova Scotia Health Authority. Workforce Analytics in Nova Scotia Hospitals Mitacs-Business Strategy Internship	$30,000 - includes industry contributions
Mitacs, Canada	March 2022 to July 2022	In collaboration with LeadSift Inc. Natural language processing for Market Intelligence Mitacs-Business Strategy Internship	$30,000 - includes industry contributions
Mitacs, Canada	February 2022 to June 2022	In collaboration with AI Dynamics. Web based GUI for Data and Machine Learning Modeling Mitacs-Business Strategy Internship	$30,000 - includes industry contributions
NRC-IRAP	June 2022 - February 2023	Science and Technology Assistance Program 1 project: Kinduct Technologies	$5000*1=$5,000

Mitacs, Canada	September 2021 to January 2022	In collaboration with Optimize AI Technology Solutions. SafePath User Interface Development Mitacs-Business Strategy Internship	$10,000 - includes industry contributions
Mitacs, Canada	September 2021 to January 2022	In collaboration with Talem Health Analytics Autocropping and enhancing image dataset of vehicular accidents Mitacs-Accelerate Explore Internship	$6,000 - includes industry contributions
Mitacs, Canada	October 2021 to February 2022	In collaboration with Kent Building Supplies. Intelligent Inventory and Personnel Management Mitacs-Business Strategy Internship	$10,000 - includes industry contributions
NSBI	April 2021- February 2022	Productivity and Innovation Voucher Program Three R&D Projects with Bluelight Analytics, NxtGen Care and Dispension	2*$15,000+$25,000= $55,000
Mitacs, Canada	April 2021 to August 2021	In collaboration with Lexington Innovations Inc. Development of a heterogeneous data repository for rating broker recommendations in capital markets Mitacs-Business Strategy Internship	$10,000 - includes industry contributions
Mitacs, Canada	March 2021 to August 2023	In collaboration with Nxtgen Care. Temporal soft clustering for profiling and predictive analytics in elderly care homes. Mitacs-Accelerate Standard Graduate Research Internship Program	161,667 - includes industry contributions
Mitacs, Canada	April 2021 to August 2023	In collaboration with Citco (Canada) Inc. Financial Portfolio Reconciliation using Deconstructed Deep Learning. Mitacs-Accelerate Standard Graduate Research Internship Program	$135,000 - includes industry contributions
Mitacs, Canada	August 2021 to July 2023	In collaboration with Delmore Buddy Daye Learning Institute Inc. Evidence-driven strategies for successful schooling outcomes of learners of African descent in Nova Scotia Mitacs-Accelerate Post Doctoral Fellowship Program. Principal supervisor with co-supervisor: Dr. Joyline Makani	$110,000 - includes industry contributions
Mitacs, Canada	March 2021 to October 2026	In collaboration with Celayix. Deep Learning Inspired Profiling, Predictive Analytics and Optimization of Employee Schedules. Mitacs-Accelerate Standard Graduate Research Internship Program Principal supervisor with co-supervisor: Dr. Jiguo Cao	$426,667 - includes industry contributions
Mitacs, Canada	March 2021 to August 2023	In collaboration with Bluelight Analytics Continuous calibration, interpolation and predictive analytics using Machine Learning Mitacs-Accelerate Standard Graduate Research Internship Program	$163,333 - includes industry contributions
Mitacs, Canada	February 2021 to October 2023	In collaboration with Greenstone Building Products. Design Automation and Optimization Using Artificial Intelligence Mitacs-Accelerate Standard Graduate Research Internship Program Co-supervisor with Principal supervisor: Dr. Vijay Mago	$138,664 - includes industry contributions
NRC-IRAP	June 2021 - February 2022	Science and Technology Assistance Program 2 projects: Talem, Area52	$5000*2=$10,000

Mitacs, Canada	July 2020 to December 2021	In collaboration with Agyle Intelligence Inc. Tracking community movements through real-time visualization and predictive analytics to manage the spread of COVID-19	$30,000 - includes industry contributions
Mitacs, Canada	March 2020 to December 2021	In collaboration with Perennia. Integration of Machine Learning and AI Based Optimization from IoT Datastreams and Business Information Systems	$160,000 - includes industry contributions
NSBI	April 2020- February 2021	Productivity and Innovation Voucher Program Four R&D Projects with WINstorm, Bluelight Analytics, Liferaft and EffProp.com	3*$15,000+$25,000=$70,000
NRC-IRAP	June 2020 - February 2021	Science and Technology Assistance Program 5 projects: Bluelight, NxtGen, Dispension, Gradpeek, Celayix	$5000*5=$25,000
Mitacs, Canada	Dec 2019 to Dec 2021	In collaboration with Hanatech Generalized framework for Prescriptive Machine Learning using IoT datastreams.	$160,000 - includes industry contributions
Mitacs, Canada	June 2019 to December 2020	In collaboration with Citco Mitacs-Accelerate Cluster Graduate Research Internship Program Agent Based Auditing of Financial Market Transactions using Deconstructed Deep Learning	$90,000 - includes industry contributions
Mitacs, Canada	June 2019 to December 2021	In collaboration with Missing Link Technologies Mitacs-Accelerate Cluster Graduate Research Internship Program Development of machine learning and artificial intelligence toolbox to monitor data center risks and performance.	$80,000 - includes industry contributions
Mitacs, Canada	October 2019 to November 2021	In collaboration with Ipse Media Mitacs-Accelerate Standard Graduate Research Internship Program Co-supervisor with Principal supervisors: Dr. Steven Smith and Dr. Yasushi Akiyama Designing Student Success: Building a Mobile Application to Improve Student Retention and Persistence	$160,000 - includes industry contributions
Mitacs, Canada	May 2019 to November 2023	In collaboration with Revive Solutions Inc. Mitacs-Accelerate Standard Graduate Research Internship Program Co-supervisor with Principal supervisor: Dr. Vijay Mago Technology Advancement in existing AED	$363,820 - includes industry contributions
NSBI	June 2019- February 2020	Productivity and Innovation Voucher Program Two R&D Projects with EffProp.com and velsoft	$15,000+$25,000 =$40,000
NRC-IRAP	June 2019 - February 2020	Science and Technology Assistance Program Five projects Agyle, WINstorm, Clinical logistics, Dynagen, Elctric Owl:	$5000*5=$25,000
NSERC of Canada	March - December 2018	NSERC Engage Grant (Medical Diagnosis using Raman Spectrographs and Machine Learning)	$25,000

David Sobey Center for Innovation in Retailing and Services	April 2018 to March 2019	Inventory prediction for products with short lifecycles using machine learning	$10,000
Mitacs, Canada	June 2018 to November 2019	In collaboration with Hanatech. Mitacs-Accelerate Cluster Graduate Research Internship Program Visualization of IoT signals and optimization of sampling rate using machine learning.	$80,000 - includes industry contributions
NSBI	June 2018-February 2019	Productivity and Innovation Voucher Program R&D Projects for three companies	$25,000*2+$15,000=$50,000
NRC-IRAP	June 2018 - February 2019	Science and Technology Assistance Program Two projects: Environmental Data collection/visualization Offline course management system	$5000*2=$10,000
Mitacs, Canada	May 2018 to October 2019	In collaboration with Clinical logistics Mitacs-Accelerate Cluster Graduate Research Internship Program A fuzzy logic based alert propagation system for temporal tracking of clinical samples	$80,000 - includes industry contributions
Mitacs, Canada	April 2018 to October 2019	In collaboration with HomeExcept Mitacs-Accelerate Cluster Graduate Research Internship Program Classification of human activities and detection of behavioral anomalies using thermopile sensor and machine learning	$80,000 - includes industry contributions
NSERC of Canada	May 2018 to October 2019	Individual Discovery Grant (Recursive and iterative clustering in granular hierarchical, network, and temporal datasets)	$100,000 (Only accessed $80,000 due to surplus)
NSERC of Canada	September 2016 to August 2018	NSERC Collaborative Research Grant (Adaptive Recognition of Time Series of Images for Warehouse Inventory Cataloging)	$60,000 + $22,500 (in kind) (Image processing)
Mitacs, Canada	May 2017 to February 2019	In collaboration with Atlantic Lottery Corporation. Mitacs-Accelerate Graduate Research Internship Program Profiling vendors and products using temporal machine learning	$90,000 - includes industry contributions
Innovacorp	Sept 2017-February 2018	Productivity and Innovation Voucher Program R&D Projects for three companies	$45,000
NRC-IRAP	June 2016 - February 2018	Science and Technology Assistance Program Two projects: Inventory prediction and Medical signal processing	$5000*2=$10,000
Mitacs, Canada	Oct 2017 to May 2018	In collaboration with SimpleBI Mitacs-Accelerate Graduate Research Internship Program Inventory prediction	$30,000 - includes industry contributions

Mitacs, Canada	May 2017 to August 2017	In collaboration with Duguid Consulting. Mitacs-Accelerate Graduate Research Internship Program Searchable Social and Environmental Impact Measurement Database Collaborator: Dr. Daphne Rixon (Professor of Accounting)	$15,000 - includes industry contributions
Atlantic Lottery Corporation	Sept 2016- April 2017	Optimizing Shipping and Handling in Retail	$24,500
Innovacorp	Sept 2016- February 2017	Productivity and Innovation Voucher Program (Probablistics Analysis of Customer Response)	$25,000
NSERC of Canada	September 2015 to February 2016	NSERC Engage Grant (Updating server inventory database through image recognition)	$24,975 (Image processing)
Mitacs, Canada	May 2016 to February 2019	In collaboration with Green Power Laboratories Inc. Mitacs-Accelerate Cluster Graduate Research Internship Program Dynamic clustering of temporally incremental energy consumption patterns in a knowledge cloud	$80,000 - includes industry contributions
Mitacs, Canada	May 2016 to August 2016	In collaboration with Duguid Consulting Mitacs-Accelerate Graduate Research Internship Program (Social and Environmental Impact of Co-operatives) Collaborator: Dr. Daphne Rixon (Professor of Accounting)	$15,000 - includes industry contributions
Innovacorp	Sept 2015- February 2016	Productivity and Innovation Voucher Program Gamified recommender system, with Dr. Oore	$15,000
NRC-IRAP	June 2015 - February 2017	Science and Technology Assistance Program Four projects: image processing, microprocessor scripting, music retrieval (with Dr. Oore), 3D scanning & printing, text-mining of counselling system	$5000*5=$25,000
Mitacs, Canada	May 2015 to January 2016	In collaboration with Atlantic Canada Opportunities Agency, Canada, and PACTA, Inc. Mitacs-Accelerate Graduate Research Internship Program Automated text mining and analysis of business contracts	$30,000 - includes industry and ACOA contributions
Munich University of Applied Sciences	July 2015	International Faculty Mobility grant - Approximately valued at $6000 (including travel and accommodations)	$6000
NSERC of Canada	April 2007 to March 2013	Individual Discovery Grant	$70,000 ($14,000/year)
Indian Institute of Technology Gandhinagar	Dec 2012 - May 2012	Visiting professor	$12,000 (Travel and accommodations)
University Grants Commission of India	Awarded for: June 2010 to June 2012	Actual duration: Dec 2010 - May 2011. Scholar-in-residence at SRTM University, Nanded Up to Rs. 2,160,000 (Approx. $50,000) for two years. Prorated to: $10,000 for the actual duration	Rs. 2,160,000

CFI Leading Edge Fund	2009	One of 9 principal investigators and 12 total co-applicants; A. East lead PI from Univ. of Regina	$506,647
Govt. of Nova Scotia	May 2001 to August 2001	Summer Student Employment Subsidy	Approximate value: $3000
NSERC of Canada	April 2003 to March 2007	Individual Research Grant	$48,000 ($12,000/year)
NSERC of Canada	April 2000 to March 2003	Individual Research Grant	$30,000 ($10,000/year)
NSERC of Canada	April 1996 to March 2000	Individual Research Grant ($10,000/year) (increased to $11550)	$42,550
Shastri Indo-Canadian Institute	1997 - 1998	Faculty Research Fellowship: Travel and Research Expenses	Approx. value $6000
NSERC of Canada	April 1993 to March 1996	Individual Research Grant	$30,000 ($10,000/year)
NSERC of Canada	March 1994	Equipment grant	$24,445
Faculty of Graduate Studies and Research Saint Mary's University	1998 – till date	Research grants for students	Average $2000/year
Faculty of Graduate Studies and Research Saint Mary's University	2008 – till date	International conference travel grants	Average $1000 biannual

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Invited talks	**52**

Publication Legend

■ Paper not available

■ Full paper available

■ Link to publisher/ DOI

Refereed Journal articles (book chapters listed separately): 67

1. Fisher A, Tan X, Billah M, Lingras P, Huang J, Mago V (2024) PAAD: Panelization algorithm for architectural designs. PLoS ONE 19(6): e0303646. https://doi.org/10.1371/journal.pone.0303646
2. Rao, G., Mago, V., Lingras, P. *et al.* AEDNav: indoor navigation for locating automated external defibrillator. *BMC Med Inform Decis Mak* **22** (Suppl 2), 159 (2022). https://doi.org/10.1186/s12911-022-01886-7
3. Rao, G., Choudhury, S., Lingras, P. et al. SURF: identifying and allocating resources during Out-of-Hospital Cardiac Arrest. BMC Med Inform Decis Mak 20 (Suppl 11), 313 (2020). https://doi.org/10.1186/s12911-020-01334-4
4. Yu, H., Chen, Y., Lingras, P., Wang, G. 2019. A Three-way Cluster Ensemble Approach for Large-Scale Data, International Journal of Approximate Reasoning, https://doi.org/10.1016/j.ijar.2019.09.001, pp. 32-49.

5. Lingras, P., Haider, F., Triff, M. 2017. Fuzzy Temporal Meta-clustering of Financial Trading Volatility Patterns. Big Data & Information Analytics, a publication of the American Institute of Mathematical Sciences, Vol. 2, No. 3&4, July & October 2017 pp. 219-238.

6. Ammar, A., Elouedi, Z, and Lingras, P. 2016. Meta-clustering of possibilistically segmented retail datasets, Fuzzy Sets and Systems, Vol 286, pp. 173-196. http://dx.doi.org/10.1016/j.fss.2015.07.019

7. Hilliard, T, Swan, L.G, Kavgic, M., Qin, Z., Lingras, P. 2016. Development of a whole building model predictive control strategy for a LEED silver community college Energy and Buildings, Energy and Buildings, Vol 111, pp. 224-232.

8. Lingras, P. and Haider, F. 2015. Partially ordered rough ensemble clustering for multigranular representations, Intelligent Data Analysis, Vol. 19, No. S1, pp. S103-S116. http://dx.doi.org/10.3233/IDA-150772

9. Lingras, P., Haider, F., and Triff, M. 2016. Granular meta-clustering based on hierarchical, network, and temporal connections, Granular Computing, Vol 1, Issue 1, pp. 1-22. http://dx.doi.org/10.1007/s41066-015-0007-9.

10. Ammar, A., Elouedi, Z, and Lingras, P. 2015. Segmented Clustering Based on Possibilistic and Rough Set Theories, International Journal of Intelligent Systems, Vol 30, pp. 676-706. http://dx.doi.org/10.1002/int.21723

11. Lingras P. and Triff, M. 2015. Fuzzy and Crisp Recursive Profiling of Online Reviewers and Businesses, the IEEE Transactions on Fuzzy Systems, Vol. 23, No. 4, pp. 1242-1258, http://dx.doi.org/10.1109/TFUZZ.2014.2349532

12. Lingras, P., Elagamy, A., Ammar, A., and Elouedi, Z. 2014. Iterative meta-clustering through granular hierarchy of supermarket customers and products, Information Sciences, Vol. 257, pp. 14-31, http://dx.doi.org/10.1016/j.ins.2013.09.018.

13. Lingras, P., Chen, M., and Miao, D. 2013. Qualitative and Quantitative Combinations of Crisp and Rough Clustering Schemes using Dominance Relations, International Journal of Approximate Reasoning, Vol. 55, pp. 238-258, http://dx.doi.org/10.1016/j.ijar.2013.05.007.

14. Lingras, P., Peters, G., Crespo, F., and Weber, R., February, 2013. Soft Clustering - Fuzzy and Rough Approaches and Their Extensions and Derivatives, International Journal of Approximate Reasoning, Vol. 54, No. 2, pp. 307-322, http://dx.doi.org/10.1016/j.ijar.2012.10.003.

15. Joshi, M., Lingras, P., Rao, C.R. 2012. Correlating Rough and Fuzzy Clustering, Fundamenta Informaticae, Vol. 115, Issue 2-3, pp. 233-246.

16. Lingras, P. and Butz, C.J., 30 September, 2011. Conservative and Aggressive Rough SVR Modeling, Theoretical Computer Science, Vol. 412, pp. 5885-5901.

17. Lingras, P. and Peters, G. 2011. Rough Clustering, Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery Vol. 1, No. 1, pp. 64-72, DOI: 10.1002/widm.16

18. Trabelsi, S., Elouedi, Z., and Lingras, P. 2011. Classification Systems based on Rough Sets under the Belief Function Framework, International Journal of Approximate Reasoning, Vol. 52, pp. 1409-1432, doi:10.1016/j.ijar.2011.08.002.

19. Butz, C.J., Chen, J., Konkel, K., Lingras, P. 2011. Join Tree Propagation Utilizing Both Arc Reversal and Variable Elimination, International Journal of Approximate Reasoning, Vol. 52, No. 7, pp. 948-959, doi:10.1016/j.ijar.2010.11.006.

20. Trabelsi, S., Elouedi, Z, and Lingras, P. 2011. Classification systems based on dynamic reduct under the belief function framework, Transactions on Rough Sets XIV, pp. 202-233, DOI: 10.1007/978-3-642-21563-6_11

21. Lingras, P., Joshi, M. 2011. Experimental Comparison of Iterative Versus Evolutionary Crisp and Rough Clustering, International Journal of Computational Intelligence Systems (IJCIS), Vol. 4, No. 1, pp. 12-28, http://dx.doi.org/10.2991/ijcis.2011.4.1.2

22. Zhang, P., Joshi, M. and Lingras, P. 2011. Use of Stability and Seasonality Analysis for Optimal Inventory Prediction Models, Journal of Intelligent Systems, Vol. 20, No. 2, pp. 147-166, DOI 10.1515 / JISYS.2011.009.

23. Lingras, P. and Butz, C.J. 2010. Rough Support Vector Regression, European Journal of Operational Research, Vol. 206, pp. 445-455.

24. Lingras, P., Chen, M., and Miao, D. 2009. Rough Cluster Quality Index Based on Decision Theory, IEEE Transactions on Knowledge and Data Engineering, Vol. 21, No. 7, pp. 1014-1026.

25. Lingras, P., Chen, M., and Miao, D. 2009. Semi-supervised Rough Cost/Benefit Decisions, Fundamenta Informaticae, Vol. 94, No. 2, pp. 233-244.

26. Butz, C.J., Chen, J., Konkel, K., Lingras, P. 2009. A Formal Comparison of Variable Elimination and Arc Reversal in Bayesian Network Inference, Intelligent Decision Technologies Journal, Vol. 177, pp. 3782-3798.

27. Lingras, P. and Butz, C.J. 2007. Rough Set based 1-v-1 and 1-v-r Approaches to Support Vector Machine Multi-classification, Information Sciences, Vol. 177, pp. 3782-3798.

28. Lingras, P. 2007. Applications of Rough Set Based K-Means,Kohonen, GA Clustering, Transactions on Rough Sets, VII, pp. 120-139.

29. Zhong, M., Sharma, S.C. and Lingras, P. 2007. Rationalizing Reliable Imputation Durations of Genetically Designed Time Delay Neural Network and Locally Weighted Regression Models, Transportation Planning and Technology, December 2007 Vol. 30, No. 6, pp. 609-626.

30. Zhong, M., Sharma, S.C. and Lingras, P. 2006. Genetically-Designed Time Delay Neural Networks for Multiple-interval Urban Freeway Traffic Flow Forecasting, Neural Information Processing - Letters and Reviews, Vol. 10, Nos. 8-9, pp. 201-209.

31. Zhong, M., Sharma, S.C. and Lingras, P. 2006. Matching Patterns for Updating Missing Values of Traffic Counts, Transportation Planning & Technology, Vol 29, No. 2, pp. 141-156.

32. Lingras, P., Hogo, M., Snorek, M., and West, C. 2005. Temporal Analysis of Clusters of Supermarket Customers: Conventional versus Interval Set Approach, Information Sciences, Vol. 172, pp. 215-240.

33. Lingras, P. and Huang, X. 2005. Statistical, Evolutionary, and Neurocomputing Clustering Techniques: cluster-based versus object-based approaches, AI Review, Vol. 23, Number 1, pp. 3-29.

34. Zhong, M., Sharma, S.C. and Lingras, P. 2005. Refining Genetically Designed Models for Improved Traffic Prediction on Rural Roads, Journal of Transportation Planning and Technology, Vol. 28, No. 3.

35. West, C., MacDonald, S., Lingras, P., and Adams, G. 2004. Relationship between Product Based Loyalty and Clustering based on Supermarket Visit and Spending Patterns, International Journal of Computer Science and Applications, Vol. 2, No. 2, pp. 85-100.

36. Zhong, M. Sharma S.C. and Lingras, P. 2005. Short-term Traffic Prediction on Different Types of Roads with Genetically Designed Regression and Time Delay Neural Network Models, Journal for Computing in Civil Engineering, American Society of Civil Engineers, Vol. 19, No. 1, pp. 94-103.

37. Zhong, M. Sharma S.C. and Lingras, P. 2005. Genetically Designed Models for Accurate Imputations of Missing Traffic Counts, Transportation Research Record 1879, The Journal of Transportation Research Board National Research Council, Washington DC, pp. 71-79.

38. Zhong M., Lingras P., and Sharma S.C. 2005. Effect of Missing Values Estimations on Traffic Parameters, Journal of Transportation Planning & Technology, Vol. 27, No. 2, pp. 119-144.

39. Lingras, P. and West, C. 2004. Interval Set Clustering of Web Users with Rough K-means, Journal of Intelligent Information System, Vol. 23, No. 1, pp. 5-16.

40. Lingras, P., Hogo, M., Snorek, M., 2004. Interval Set Clustering of Web Users using Modified Kohonen Self-Organizing Maps based on the Properties of Rough Sets, Web Intelligence and Agent Systems: An International Journal, Vol. 2, No. 3, pp. 217-230.

41. Lingras, P., Yan, R., and Hogo, M. 2004. Evolutionary, Neural, and Statistical Approaches to Interval Clustering for Web Mining Journal of Intelligent Systems, Vol. 13, No. 4, pp. 329-350.

42. Lingras, P., Yan, R., and Jain A. 2004. Unsupervised Characterization of Web users: Conventional and Fuzzy Approaches, Journal of Intelligent Systems, Vol. 13, No. 4, pp. 311-327.

43. Zhong M., Lingras P., and Sharma S.C. 2004. Estimation of Missing Traffic Counts: Factor, Genetic, Neural, and Regression Techniques, Transportation Research, Part C, Vol. 12, pp. 139-166.

44. Davies, C. and Lingras, P. 2003. Genetic Algorithms for Rerouting Shortest Paths in Dynamic and Stochastic Networks, European Journal of Operational Research, Vol. 144, pp.27-38.

45. Lingras, P., Zhong, M. and Sharma, S.C. 2002. Prediction of Recreational Travel using Genetically Designed Regression and Time Delay Neural Network Models, Transportation Research Record 1805, The Journal of Transportation Research Board, National Research Council, Washington, D.C, pp. 16-24.

46. Lingras, P. 2001. Unsupervised Rough Set Classification using GAs, Journal of Intelligent Information Systems, Vol. 16, No. 3, pp. 215-228.

47. Lingras, P. and Davies, C. 2001. Applications of Rough Genetic Algorithms, Computational Intelligence: An International Journal, Vol. 17, No. 3, pp. 435-445.

48. Lingras, P. 2001. Fuzzy-Rough and Rough-Fuzzy Serial Combinations in Neurocomputing, Neurocomputing Journal, Vol. 36, pp. 29-44.

49. Lingras, P. 2001. Statistical and Genetic Algorithms Classification of Highways, Journal of Transportation Engineering, American Society of Civil Engineering, Vol. 127, No. 3, pp. 237-243.

50. Sharma, S.C., Lingras, P., Xu, F., and Kilburn, P. 2001. Application of Neural Networks to Estimate AADT on Low-Volume Roads, Journal of Transportation Engineering, American Society of Civil Engineers, Vol. 127, No. 5, pp. 426-432.

51. Sharma, S.C., Lingras, P., Liu, G., and Xu, F. 2000. Estimation of Annual Average Daily Traffic on Low-volume Roads: The Factor Approach versus Neural Networks, Transportation Research Record – 1719, The Journal of Transportation Research Board, National Research Council, Washington, D.C., No. 1719, pp. 103-111.

52. Lingras, P. Sharma, S.C., Osborne, P., and Kalyar, I. 2000. Traffic Volume Time Series Analysis According to the Type of Road Use: Neurocomputing Versus Statistical Approach, Computer-Aided Civil and Infrastructure Engineering Journal, Vol. 15, pp. 365-473.

53. Sharma, S.C., Lingras P., Xu, F., and Liu, G.X. 1999. Neural Networks as an Alternative to the Traditional Factor Approach of AADT Estimation from Traffic Counts, Transportation Research Record: Journal of the Transportation Research Board, National Research Council, Washington, D.C, TRR 1660, pp. 24-31.

54. Lingras P. and Yao, Y.Y. 1998. Data Mining Using Extension of Rough Set Model, Journal of American Society of Information Science, Vol. 49, No. 5, pp. 415-422.

55. Lingras, P. 1998. Traffic Parameter Estimation and Highway Classification: Rough Patterns Using a Neural Networks Approach., Journal of Transportation Planning & Technology, Vol. 21, pp. 155-179.

56. Yao, Y.Y. and Lingras, P.1998. Interpretations of belief functions in the theory of rough sets, Information Sciences: an International Journal, Vol.104, No. 1-2, pp. 81-106.

57. Lingras, P. 1998. Comparison of neofuzzy and rough neural networks, Information Sciences: an International Journal, Vol. 110, pp. 207-215. (A shorter version appeared in the Proceedings of The fifth international workshop on rough sets and soft computing RSSC'97.)

58. Lingras, P. and Adamo, M. 1996. Average and Peak Traffic Volumes: Neural Nets, Regression, Factor Approaches, Journal of Computing in Civil Engineering, American Society of Civil Engineers, Vol. 10, No. 4, 300-306.

59. Lingras, P. 1996. Evidential Comparisons Using Belief Functions, Rough Sets and Nonmonotonic Preferences, Intelligent Automation and Soft Computing: An International Journal, Vol. 2, No. 2, pp. 203-209.

60. Lingras, P. 1996. Traffic Engg. Recurrent Spatial Knowledge Base: Design and Implementation, Journal of Computing in Civil Engineering, American Society of Civil Engineers, Vol 10, No. 1, 50-59.

61. Lingras, P. 1995. Classifying Highways: Hierarchical Grouping Vs Kohonen Neural Networks, Journal of Transportation Engineering, American Society of Civil Engineers, Vol. 121, No. 4, 364-368.

62. Wong, S. K. M., Lingras, P. 1994. Representation of Qualitative User Preference by Quantitative Belief Functions, IEEE Transactions on Knowledge and Data Engineering, Vol. 6, No. 1, pp. 72-78.

63. Wong, S. K. M., Yao, Y. Y. and Lingras, P. 1994. Comparative Beliefs and Their Measurements, International Journal of General Systems, Vol. 22, No. 1, pp. 69-90.

64. Lingras, P., Wong, S. K. M., 1990. Two Perspectives of the Dempster-Shafer Theory of Belief Functions, International Journal of Man-machine Studies, Vol. 33, pp. 467-487.

65. Sharma, S. C., Lingras, P., 1988. Cost of Driving Comfort and Convenience for Two-Lane Highways, Transportation Engineering Journal , American Society of Civil Engineers, Vol. 115, No. 3, pp. 283-297.

66. Sharma, S. C., Lingras, P., and Werner, Al., 1987. Highway Economic Analysis Experiences with the 1985 Highway Capacity Manual, Transportation Research Record 1112, Transportation Research Board, National Research Council, Washington, D.C., pp. 1-9.

67. Sharma, S.C., Lingras, P., Hassan, M.U. and Murthy, A.S., 1986. Road Classification According to Driver Population, Transportation Research Record 1090, Transportation Research Board, National Research Council, Washington, D.C. pp. 61-69.

Refereed Book Chapters: 12

1. Wiechert,G., Triff, M., Liu, Z., Yin, Z., Zhao, S., Zhong, Z., Lingras, P. 2017. Supervised and Semi-Supervised Identification of Users and Activities from Wearable Device Brain Signal Recordings, in Tripathy, B., & Anuradha, J. (Eds.), Internet of Things (IoT): Technologies, Applications, Challenges and Solutions, Taylor & Francis, pp. 17-40.
2. Joshi, M., Lingras, P., Wani, G. and Zhang, P. 2014. Clustering based Stability and Seasonality Analysis for Optimal Inventory Prediction, in Tripathy, B., & Acharjya, D. (Eds.), Global Trends in Intelligent Computing Research and Development, IGI-Global, doi:10.4018/978-1-4666-4936-1, pp. 1-20.
3. Lingras, P., Bhalchandra, P., Butz, C., and Asharaf, S. 2012. Rough Support Vectors: Classification, Regression, Clustering, Rough Sets and Intelligent Systems, Intelligent Systems Reference Library (ISRL), 42, Springer-Verlag Berlin Heidelberg, pp. 491-515.
4. Lingras, P. and Peters, G. 2011. Applying Rough Set Concepts to Clustering, Selected Methods and Applications of Rough Sets to Management and Engineering, Springer, U.K., pp. 23-37.
5. Lingras, P., Butz, C. and Bhalchandra, P. 2011. Financial Series Forecasting using Dual Rough Support Vector Regression, Selected Methods and Applications of Rough Sets to Management and Engineering, Springer, U.K., pp. 115-127.
6. Lingras, P., S. Asharaf, and Butz, C.J. 2008. Rough Clustering, Handbook of Granular Computing (Eds. W. Pedrycz, A. Skowron, V. Kreinovich), John Wiley & Sons, Chapter 46, pp. 969-986.
7. Lingras, P. and Lingras, R. 2008. Hyperlink Structure Inspired by Web Usage, Handbook of Research on Text and Web Mining Technologies, Idea group, pp. 386-400.
8. Lingras, P., Zhong, M., Sharma, S.C. 2008. Evolutionary Regression and Neural Imputations of Missing Values, Soft Computing Applications in Industry, Studies in Fuzziness and Soft Computing Series, Vol. 226, Springer, pp. 151-163.
9. Lingras, P., Yan, R., and Jain A. 2004. Web Usage Mining: Comparison of Conventional, Fuzzy, and Rough Set Clustering, Computational Web Intelligence: Intelligent Technology for Web Applications (Eds. Y. Zhang and Y. Yao), chapter 7, pp. 133-148.
10. Lingras, P., Yan, R., Hogo, M. and West C. 2004. Interval Set Representations of Clusters Fuzzy, and Rough Set Clustering, Encyclopedia of Data Warehousing and Mining (Ed. J. Wang), IGI Global, pp. 659-663.
11. Lingras, P. 1998. Applications of Rough Patterns, chapter in the book: Rough Sets in Data Mining and Knowledge Discovery 2 , L. Polkowski and A. Skowron (editors), series Soft Computing , Physica Verlag (Springer), pp. 369-384.
12. Wong, S. K. M., Yao, Y. Y. and Lingras, P. 1992. Comparative Beliefs, Advances in the Dempster-Shafer Theory of Evidence, (Ed. M. Fedrizzi, J. Kacprzyk, and R. Yager), pp. 115-132

Textbooks: 3

1. Lingras, P., Triff, M., Lingras, R. 2014. Building Cross-Platform Mobile and Web Apps for Engineers and Scientists: An Active Learning Approach, Cengage Learning, Inc.
2. Lingras, P., Scobey, P., 2011. Web Programming and Internet Technologies: An e-commerce approach, Jones and Bartlett.
3. Lingras, P. Akerkar, R., 2007. Building an Intelligent Web: Theory and Practice, Jones and Bartlett.

Edited Books: 2

1. Lingras, P., Peters, G., Slezak, D., and Yao, Y., 2011. Selected Methods and Applications of Rough Sets to Management and Engineering, Springer, U.K.
2. Lingras, P., Hassanien, A., Suraj, Z., and Slezak, D., 2008. Rough Computing: Theories, Technologies and Applications, IGI Global (Idea Group).

Edited Volumes: 15

1. Hu, M., Cornelis, C., Zhang, Y., Lingras, P., Slezak, D., Yao, J. (2024) Rough Sets, International Joint Conference, IJCRS 2024, Halifax, NS, Canada, May 17–20, 2024, Proceedings, Parts I and II Series: Lecture Notes in Computer Science, Springer, Vol. 14839 and 14840.
2. Dick, S., Kreinovich, V., Lingras, P. (2022) Applications of Fuzzy Techniques: Proceedings of the 2022 Annual Conference of the North American Fuzzy Information Processing Society NAFIPS 2022, Halifax, Canada, May-June 2022.
3. Patel, K. K., Doctor, G. Patel, A., Lingras, P. (2021) Soft Computing and its Engineering Applications, Third International Conference, icSoftComp 2021, Changa, Anand, India, December 10–11, 2021, Revised Selected Papers.
4. Luhach, A.K., Jat, D.S., Hawari, K.B.G., Gao, X.-Z., Lingras, P. (2019) Advanced Informatics for Computing Research, Third International Conference, ICAICR 2019, Shimla, India, June 15-16, 2019, Revised Selected Papers, Part I
5. Reddy, D., Lingras, P., Venkatnareshbabu, K. 2018. Advances in Machine Learning and Data Science, Conference Proceedings, Advances in Intelligent Systems and Computing book series (AISC, volume 705).
6. Singh, D., Raman, B., Luhach, A., Lingras, P. Advanced Informatics for Computing Research First International Conference, ICAICR 2017, Jalandhar, India, March 17-18, 2017, Communications in Computer and Information Science book series (CCIS, volume 712).
7. Ramanna, S., Lingras, P., Sombattheera, C., Krishna, A. (2013) Multi-disciplinary Trends in Artificial Intelligence 7th International Workshop, MIWAI 2013, Krabi, Thailand, December 9-11, 2013. Proceedings Series: Lecture Notes in Computer Science, Springer, Vol. 8271.
8. Lingras, P., Wolski, M., Cornelis, C., Mitra, S., Wasilewski, P. (2013) Rough Sets and Knowledge Technology 8th International Conference, RSKT 2013, Halifax, NS, Canada, October 11-14, 2013, Proceedings Series: Lecture Notes in Computer Science, Subseries: Lecture Notes in Artificial Intelligence, Springer, Vol. 8171.
9. Li, T., Lingras, P., Li, F., Herbert, J. 2011. Special Issue on Computational Intelligence in Decision Making, International Journal of Computational Intelligence Systems, Volume 4, Issue 1, 2011.
10. Lingras, P., and Butz, C., May 25-27, 2011. 24th Canadian Conference on Artificial Intelligence, Canadian AI 2011, St. John's, Canada, Proceedings, Series: Lecture Notes in Computer Science, Subseries: Lecture Notes in Artificial Intelligence, Springer, Vol. 6657.
11. Lingras, P., An, A., Petty, S., and Huang, R., August 28-30, 2010. Active Media Technology: 6th International Conference, AMT 2010, Toronto, Canada, Proceedings, Lecture Notes in Computer Science, Springer, Vol. 6335.
12. Lingras, P., Yu, J., Greco, S., Wang, G., and Skowron, A., October 15-17, 2010. Rough Sets and Knowledge Technology, 5th International Conference, RSKT 2010 Beijing, China, October 2010 Proceedings, Lecture Notes in Artificial Intelligence, Subseries of Lecture Notes in Computer Science, Springer, Vol. 6401.
13. Lingras, P., Slowinski, R., Miao, D., Tsumoto, S., Peters, J.F., and Skowron, A., 2010. Rough Set Structuring of Knowledge, A special issue of the Transaction on Rough Sets, Volume X, Springer Verlag, Vol. 6190.
14. Lingras, P., Yao, J., Wu, W-Z., Szczuka, M., Cercone, N., and Slezak, D., May 14-16, 2007. Rough Sets and Knowledge Technology, Second International Conference, RSKT 2007 Toronto, Canada, Proceedings, Lecture Notes in Artificial Intelligence 4481, Subseries of Lecture Notes in Computer Science, Springer.
15. Lingras, P., Prasad, B., and Ram, A., December 16-18, 2009. Proceedings of the 4th Indian International Conference on Artificial Intelligence Tumkur, India.

Submitted to Journals For Publication: 6

1. Fisher, A., Billah, M., Lingras, P., Huang. J., and Mago, V., 2024. Improving Construction Planning and Design with Artificial Intelligence and Generative Techniques: Current Trends and Directions. Under review in Automation in Construction.

2. Fisher, A., Moreira, L., Billah, M., Lingras, P., and Mago, V., 2024. Building Image Reconstruction and Dimensioning from Two-Dimensional Perspective Drawings. Major revision in Engineering Applications of Artificial Intelligence.
3. Fisher, A., Moreira, L., Billah, M., Lingras, P., and Mago, V., 2024. Jointly Trained Automation of Explainable Construction (JACK) Material Knowledge. Under review in Advanced Engineering Informatics.
4. Fisher, A., Moreira, L., Billah, M., Lingras, P., and Mago, V., 2024. Machine Learning-Based Cost Estimation Methods for Civil Engineering Applications: A Short Communication. Under review in Journal of Building Engineering.
5. Gaurav Rao, David W. Savage, Gabrielle Erickson, Nathan Kyryluk, Pawan Lingras, and Vijay Mago. Enhancing cpr quality through smartwatch: A neural network approach. Under review with JMIR mhealth
6. Neveditsin, N., Lingras, P., & Mago, V. (2024). Clinical Insights: A Comprehensive Review of Language Models in Medicine. Manuscript submitted for publication in PLOS Digital Health. (Available on arXiv).

| **Refereed Conference Proceedings: 135** |

1. Neveditsin, N., Salgaonkar, A., Lingras, P., & Mago, V. (2024). Classification of Buddhist Verses: The Efficacy and Limitations of Transformer-Based Models. ACL Anthology (to be published in November 2024).
2. Lingras, P., Patil, S., Neveditisn, N., Mago, V. (2024) Information Retrieval for SME Healthcare Facilities Using Weakly Supervised LLMs, Workshop on Weakly Supervised and Cautious Learning (WSCL), European Conference on AI, 27th European Conference on Artificial Intelligence, 19-24 October 2024, Santiago de Compostela.
3. G. Rao, D. W. Savage, P. Lingras and V. Mago, Application of Operations Research methods in operating room scheduling - a short survey, 2024 IEEE Canadian Conference on Electrical and Computer Engineering (CCECE), Kingston, ON, Canada, 2024, pp. 547-553, doi: 10.1109/CCECE59415.2024.10667138, https://ieeexplore.ieee.org/abstract/document/10667138
4. Rao, G., Savage, D. W., Mago, V. and Lingras, P. A Survey on Technologies Used During out of Hospital Cardiac Arrest, Proceedings of the 16th International Joint Conference on Biomedical Engineering Systems and Technologies (BIOSTEC 2023) – HEALTHINF, Vol. 5, pp. 477-488
5. Kadam, R. and Lingras, P. 2023. Understanding Sales Patterns using Unsupervised Machine Learning, Symposium on AI, Data and Digitalization (SAIDD 2023), 42.
6. Kadam, R. and Lingras, P. 2023. Predictive Analytics for Product Consumption using Customer Demographics, Symposium on AI, Data and Digitalization (SAIDD 2023), 65.
7. Kadam, R., Frempong, G., Makani, J., and Lingras, P. 2022. Evidence-driven Strategies for Successful Schooling Outcomes of Black Nova Scotian Learners, Refereed Abstract and Presentation, The 21st IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology, Niagara Falls, Canada, November 2022.
8. Rao, G., Savage, D. W., Lingras, P. and Mago, V. 2022. Measuring CPR feedback using smartwatch technology, Refereed Abstract and Presentation, The 21st IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology, Niagara Falls, Canada, November 2022.
9. Frempong, G., Kadam, R., Makani, J. and Lingras, P. 2022. Promising Inclusive Schools in the Canadian Nova Scotian Education System: Theory of Change from an Africentric perspective, Refereed Abstract and Presentation, The 21st IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology, Niagara Falls, Canada, November 2022.
10. Kadam, R., Frempong, G., Makani, J. and Lingras, P. 2022. EDI in Higher Education: Applying an Intersectionality Framework using a Data-Driven Approach, Atlantic School of Business Conference, Wolfville, Canada, October 2022.
11. Kadam, R., Makani, J., Frempong, G. and Lingras, P. 2022. Evidence-driven Strategies for Successful Learning Outcomes of African Nova Scotia Students, International Conference on Knowledge Management (ICKM) Conference, Potsdam, Germany, June 2022.

12. Kadam, R., Frempong, G., Makani, J. and Lingras, P. 2022. EDI in Higher Education: Applying an Intersectionality Framework using a Data-Driven Approach, Administrative Sciences Association of Canada (ASAC) Conference, Halifax, Canada, May 2022.

13. Neveditsin, N., MacDonald, R., Hillard, T. and Lingras, P. 2020 Modeling User Feedback: Fuzzy Sampling, Portability, and Degree of Annoyance, Proceedings of 2020 IEEE International Conference on Fuzzy Systems, Glasgow, Scotland, USA, July 2020.

14. MacDonald, R., Neveditsin, N., Lingras, P. and Hillard, T. 2019 Sampling Using Fuzzy and Crisp Clustering to Improve Recall of Building Comfort Feedback, Proceedings of 2019 IEEE International Conference on Fuzzy Systems, New Orleans, Louisiana, USA, July 2019, ISBN: 978-1-5386-1728-1, IEEE Catalog: 41876.

15. MacDonald, R., Neveditsin, N., Lingras, P. and Hillard, T. 2019 Effect of Maximizing Recall and Agglomeration of Feedback on Accuracy, Fuzzy Techniques: Theory and Applications (Ralph Baker Kearfott, Ildar Batyrshin, Marek Reformat, Martine Ceberio, Vladik Kreinovich Editors) Proceedings of the 2019 Joint World Congress of the International Fuzzy Systems Association and the Annual Conference of the North American Fuzzy Information Processing Society IFSA/NAFIPS'2019 (Lafayette, Louisiana, USA, June 18-21, 2019), pp. 351-361.

16. Triff, M., Pavlovski, I. Liu, Z., Morgan, L., Lingras, P. 2018. Fuzzy Clustering Ensemble for Prioritized Sampling Based on Average and Rough Patterns, Proceedings of 31st International Conference on Industrial Engineering and Other Applications of Applied Intelligent Systems, IEA/AIE 2018, Montreal, QC, Canada, June 25-28, 2018, LNAI 10868, Springer-Verlag Berlin Heidelberg, pp. 661-669.

17. Triff, M., Pavlovski, I. Liu, Z., Morgan, L., Lingras, P. 2017. Clustering ensemble for prioritized sampling based on average and rough patterns, Proceedings of 25th International Symposium on Methodologies for Intelligent Systems (ISMIS 2017), Warsaw, Poland, June 2017, LNAI 10352, Springer-Verlag Berlin Heidelberg, pp. 530-539.

18. Triff, M., Wiechert,G., Lingras, P. 2016. Nonlinear Classification, Linear Clustering, Evolutionary Semi-Supervised Three-Way Decisions: A Comparison, Proceedings of 2017 IEEE International Conference on Fuzzy Systems, Naples, Italy, July 2017.

19. Wiechert,G., Triff, M., Liu, Z., Yin, Z., Zhao, S., Zhong, Z., Lingras, P. 2016. Identifying Users and Activities from Brain Wave Signals Recorded from a Wearable Headband, Proceedings of 15th IEEE International Conference on Cognitive Informatics and Cognitive Computing, Stanford University, USA, August 22-23, pp. 129-136.

20. Wiechert,G., Triff, M., Liu, Z., Yin, Z., Zhao, S., Zhong, Z., Lingras, P. 2016. Evolutionary Semi-supervised Rough Categorization of Brain Signals from a Wearable Headband, Proceedings of 2016 IEEE World Congress on Computational Intelligence, Vancouver, Canada, July 24-19.

21. Lingras, P., Triff, M. 2016. Advances in Rough and Soft Clustering: Meta-Clustering, Dynamic Clustering, Data-Stream Clustering, Proceedings of International Joint Conference on Rough Sets, V. Flores et al. (Eds.): IJCRS 2016, LNAI 9920, pp. 1-20. DOI: 10.1007/978-3-319-47160-0 1

22. Rhinelander, J., Kallada, M. and Lingras, P. 2015. Visual Predictions of Traffic Conditions, 28th Canadian Conference on Artificial Intelligence, Canadian AI 2015 Halifax, Nova Scotia, Canada, June 2-5, 2015, pp. 122-129.

23. Lingras, P., Haider, F. 2015. Combining Rough Clustering Schemes as a Rough Ensemble International Joint Conference on Rough Sets (IJCRS 2015), Tianjin, China, November 20-23, 2015, RSKT 2015, LNAI 9436, pp. 1-12. http://dx.doi.org/10.1007/978-3-319-25754-9 34.

24. Ammar, A., Elouedi, Z, and Lingras, P. 2014. Rough Possibilistic Meta-Clustering of Retail Datasets, 2014 International Conference on Data Science and Advanced Analytics (DSAA'2014), Shanghai, October 30-November 1, 2014.

25. Peters, G. and Lingras, P. 2014. Analysis of User-Weighted π Rough k-Means, 9th International Conference on Rough Sets and Knowledge Technology (RSKT2014), Shanghai, October 24-26, 2014, pp. 547-556.

26. Ammar, A., Elouedi, Z, and Lingras, P. 2014. Meta-Clustering Approach using Possibilistic Membership: Application to Retail Datasets, 2nd World conference on Complex Systems (WCCS14), Agadir-Morocco, November 10-11, 2014.

27. Ammar, A., Elouedi, Z, and Lingras, P. 2014. Semantically Enhanced Clustering in Retail using Possibilistic K-Modes, 9th International Conference on Rough Sets and Knowledge Technologyï¼ˆRSKT2014), Shanghai, October 24-26, 2014, pp. 753-764.

28. Ammar, A., Elouedi, Z, and Lingras, P. 2014. Decremental Rough Possibilistic K-Modes, The 2014 International Conference on Adaptive and Intelligent Systems, September 8-10, 2014, Bournemouth - UK.

29. Ammar, A., Elouedi, Z, and Lingras, P. 2013. Decremental Possibilistic K-Modes, SCAI 2013 : Twelfth Scandinavian Conference on Artificial Intelligence November 20-22, 2013, Aalborg, Denmark.

30. Ammar, A., Elouedi, Z, and Lingras, P. 2013. Incremental Rough Possibilistic K-Modes, Proceedings of The 7th Multi-Disciplinary International Workshop on Artificial Intelligence December 9-11, 2013 at Krabi, Thailand, Springer, LNAI 8271.

31. Triff, M. and Lingras P. 2013. Recursive Profiles of Businesses and Reviewers on Yelp.com, Proceedings of 14th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, RSFDGrC 2013, LNCS 8170, pp. 325-335.

32. Joshi, M. and Lingras P. 2013. Enhancing Rough Clustering with Outlier Detection Based on Evidential Clustering, Proceedings of 14th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, RSFDGrC 2013, LNCS 8170, pp. 127-137.

33. Ammar, A., Elouedi, Z, and Lingras, P. 2013. Incremental Possibilistic K-Modes, Proceedings of 14th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, RSFDGrC 2013, LNCS 8170, pp. 293-303.

34. Trabelsi, S., Elouedi, Z, and Lingras, P. 2013. Belief Discernibility Matrix and Function for Incremental or Large Data, Proceedings of 14th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, RSFDGrC 2013, LNCS 8170, pp. 67-76.

35. Rathinavel, K. and Lingras, P. 2013. A Granular Recursive Fuzzy Meta-clustering Algorithm for Social Networks, Proceedings of 2013 IFSA World Congress NAFIPS Annual Meeting Edmonton, Canada June 24-28, 2013, IEEE press, pp. 567-572.

36. Ammar, A., Elouedi, Z, and Lingras, P. 2012. The K-Modes Method using Possibility and Rough Set Theories, Proceedings of 2013 IFSA World Congress NAFIPS Annual Meeting Edmonton, Canada June 24-28, 2013, IEEE press, pp. 1297-1302.

37. Ammar, A., Elouedi, Z, and Lingras, P. 2012. The K-Modes Method under Possibilistic Framework, Proceedings of Canadian AI 2013, LNAI 7884, pp. 211-217.

38. Trabelsi, S., Elouedi, Z, and Lingras, P. 2012. Exhaustive Search with Belief Discernibility Matrix and Function, Proceedings of Canadian AI 2013, LNAI 7884, pp. 162-173.

39. Nagrecha, S., Lingras, P., and Chawla, N. 2013. Comparison of Gene Co-expression Networks and Bayesian Networks, Proceedings of the 5th Asian Conference On Intelligent Information and Database Systems (ACIIDS 2013), Part I, LNAI 7802, Springer-Verlag Berlin Heidelberg, pp. 507-516.

40. Ammar, A., Elouedi, Z, and Lingras, P. 2012. RPKM: The Rough Possibilistic K-Modes, Proceedings of 20th International Symposium on Methodologies for Intelligent Systems (ISMIS 2012), LNAI 7661, Springer-Verlag Berlin Heidelberg, pp. 81-86.

41. Ammar, A., Elouedi, Z, and Lingras, P. 2012. K-Modes Clustering Using Possibilistic Membership, Proceedings of 14th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, (IPMU'2012), Part III, Catania, Italy, July 9-13, 2012, pp. 596-605.

42. Trabelsi, S., Elouedi, Z, and Lingras, P. 2012. Heuristic for attribute selection using belief discernibility matrix Proceedings of 2012 Joint Rough Set Symposium (JRS2012),Chengdu, China, August 17-20, 2012, pp. 129-138.

43. Joshi, M. and Lingras P. 2012. Evidential Clustering or Rough Clustering: The Choice is yours, Proceedings of 2012 Joint Rough Set Symposium (JRS2012),Chengdu, China, August 17-20, 2012.

44. Lingras, P., Nimse, S., Darkunde, N. and Muley, A. 2011. Soft Clustering from Crisp Clustering using Granulation for Mobile Call Mining, Proceedings of 2011 IEEE International Conference on Granular Computing, November 8-10, National University of Kaohsiung, Garden Villa, Kaohsiung, Taiwan, pp. 410-416.

45. Zhang, P., Joshi, M., and Lingras, P. 2011. Clustering of Products to Identify Optimal Inventory Prediction Models, Proceedings of Fifth Indian International Conference on Artificial Intelligence, IICAI'11, Tumkur, India, December 16-18, pp. 71-88.

46. Lingras, P., Bhalchandra, P., Mekewad, S., Rathod, R. and Khamitkar, S. 2011. Comparing Clustering Schemes at Two Levels of Granularity for Mobile Call Mining, Rough Sets and Knowledge Technology, Proceedings of 6th International Conference, RSKT 2011 Banff, Canada, Lecture Notes in Artificial Intelligence, Subseries of Lecture Notes in Computer Science, LNCS 6954, Springer-Verlag, pp. 696-705.

47. Joshi, M., and Lingras, P., Wani, G., Zhang, P. 2011. Clustering based Stability despite of Temporal Variations, Proceedings of the International Conference on Information Technology, Systems and Management (ITSM 2011), Indian Institute of Management Kozhikode, Dec 17-18, 2011, pp. 306-311.

48. Joshi, M., Lingras, P., Yao, Y., Bhavsar, V. 2010. Rough, Fuzzy, Interval Clustering for Web Usage Mining, 2010 International Conference on Intelligent Systems Design and Applications (ISDA 2010) Proceedings.

49. Trabelsi, S., Elouedi, Z, and Lingras, P. 2010. Belief Rough Set Classification for Web Mining based on Dynamic Core, 2010 International Conference on Intelligent Systems Design and Applications (ISDA 2010) Proceedings.

50. Joshi, M., Lingras, P., Rao, C.R., 2010. Analysis of Rough and Fuzzy Clustering, Rough Sets and Knowledge Technology, 5th International Conference, RSKT 2010 Beijing, China, October 2010 Proceedings, Lecture Notes in Artificial Intelligence 6401, Subseries of Lecture Notes in Computer Science, Springer, pp. 653-660.

51. Trabelsi, S., Elouedi, Z, and Lingras, P. 2010. A Comparison of Dynamic and Static Belief Rough Set Classifier, Proceedings of Seventh International Conference on Rough Sets and Current Trends in Computing, RSCTC 2010, Warsaw, Poland, June 28-30, M. Szczuka et al. (Eds.): RSCTC 2010, LNAI 6086, Springer-Verlag, pp. 366-375.

52. Trabelsi, S., Elouedi, Z, and Lingras, P. 2010. Rule Discovery Process Based on Rough Sets under the Belief Function Framework, Proceedings of International Conference on Management of Uncertainty in Knowledge-Based Systems, IPMU 2010, E. Hullermeier, R. Kruse, and F. Hoffmann (Eds.): IPMU 2010, LNAI 6178, Springer-Verlag, pp. 726-736.

53. Joshi, M. and Lingras, P. 2009. Evolutionary and Iterative Crisp and Rough Clustering (Parts: I&II), Proceedings of Third International Conference on Pattern Recognition & Machine Intelligence (PReMI'09) (Dec. 16-20, 2009, IIT Delhi, India). S. Chaudhury et al. (Eds.): PReMI 2009, LNCS 5909, Springer-Verlag, pp. 615-627.

54. Trabelsi, S., Elouedi, Z, and Lingras, P. 2009. Dynamic reduct from partially uncertain data using rough sets, Proceedings of Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, RSFDGrC'09, New Delhi, December 16-18. H. Sakai et al. (Eds.): RSFDGrC 2009, LNAI 5908, Springer-Verlag, pp. 160-167.

55. Yao, Y.Y., Lingras, P., Wang, R., Miao, D. 2009. Interval Set Cluster Analysis, Proceedings of Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, RSFDGrC'09, New Delhi, December 16-18, Springer-Verlag, pp. 398-405.

56. Joshi, M., Bhavsar, V., and Lingras, P. 2009. An Algorithm for the Estimation of a Time Period of 2-Sequences, Proceedings of Fourth Indian International Conference on Artificial Intelligence, IICAI'09, Tumkur, India, December 16-18, pp. 71-88.

57. Trabelsi, S., Elouedi, Z, and Lingras, P. 2009. Belief Rough Set Classifier, Proceedings of Canadian AI 2009, Kelowna, British Columbia, Canada, Lecture Notes in Artificial Intelligence 5549, Springer Verlag, pp. 257-261.

58. Lingras, P. 2009. Rough K-Medoid Clustering using GAs, Proceedings of ICCI 2009, Hong Kong.

59. Lingras, P. 2009. Evolutionary Rough K-Means Clustering, Proceedings of Rough Set and Knowledge Technologies 2009, Lecture Notes in Computer Science 5589, Springer Verlag, pp. 68-75.

60. Butz, C.J., Konkel, K. and Lingras, P. 2009. Join Tree Propagation utilizing both Arc Reversal and Variable Elimination, Twenty Second International Florida Artificial Intelligence Research Society Conference (FLAIRS), pp. 523-528.

61. Butz, C.J., Chen, J., Konkel, K. and Lingras, P. 2009. A Comparative Study of Variable Elimination and Arc Reversal in Bayesian Network Inference, Twenty Second International Florida Artificial Intelligence Research Society Conference (FLAIRS), pp. 571-572.

62. Lingras, P., Chen, M., and Miao, D. 2008. Precision of Rough Set Clustering, Proceedings of Sixth International Conference on Rough Sets and Current Trends in Computing Akron, Ohio, USA, October 23 - 25, 2008.

63. Lingras, P., Chen, M., and Miao, D. 2008. Rough Multi-category Decision Theoretic Framework, Proceedings of 3rd International Conference on Rough Sets and Knowledge Technology, pp. 676-683.

64. Butz, C.J., Yan, W., Lingras, P., Konkel, K. and Yao, Y. 2008. On Variable Elimination in Discrete Bayesian Network Inference, 9th World Meeting of the International Society for Bayesian Analysis (ISBA08), pp. 96-97.

65. Butz, C.J., Lingras, P. and Konkel, K. 2008 A Web-based Interface for Hiding Bayesian Network Inference, Proceedings of 17th International Symposium on Methodologies for Intelligent Systems (ISMIS08), pp. 612-617.

66. Lingras, P. and Butz, C.J. 2007. Precision and Recall based Implementation of Binary Rough Support Vector Machine, Proceedings of 2007 IEEE International Conference on Granular Computing, pp. 654-658.

67. Lingras, P. and Lingras, R. 2007. Adaptive hyperlinks using page access sequences and minimum spanning trees, Proceedings of 2007 IEEE International Conference on Fuzzy Systems, pp. 529-534.

68. Lingras, P. and Jensen, R. 2007. Survey of Rough and Fuzzy Hybridization, Proceedings of 2007 IEEE International Conference on Fuzzy Systems, pp. 125-130.

69. Bain, K., Hines, J., Lingras, P., Yumei, Q. 2007. Using Speech Recognition and Intelligent Search Tools to Enhance Information Accessibility, Proceedings of HCI International 2007, Lecture Notes in Computer Science Series (LNCS), 2007.

70. Butz, C.J. and Lingras, P. 2005. On the Practical Irrelevance of Diverging Implication between Probabilistic Conditional Independence and Embedded Multivalued Dependency, 2nd Indian International Conference on Artificial Intelligence (IICAI-05), pp. 2464-2475.

71. Lingras, P. and Butz, C.J. 2005. Interval Set Representations of 1-v-r Support Vector Machine Multi-classifiers, the IEEE International Conference on Granular Computing, pp. 193-198.

72. Lingras, P. and Butz, C.J. 2005. Reducing the Storage Requirements of 1-v-1 Support Vector Machine Multi-classifiers, 10th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing (RSFDGrC05), vol. 2, pp. 166-173.

73. Lingras, P. Hogo, M., and Snorek, M. 2004. Temporal Cluster Migration Matrices for Web Usage Mining, Proceedings of 2004 IEEE/WIC International Conference on Web Intelligence, WI2004, Beijing, China, pp. 441-444.

74. Lingras, P. and Yan, R. 2004. Interval Clustering Using Fuzzy and Rough Set Theory, Proceedings of 2004 conference of the North American Fuzzy Information Processing Society, Banff, Alberta, June 27-30, 2004, pp. 780-784.

75. Lingras, P. and Butz, C. 2004. Interval Set Classifiers using Support Vector Machines, Proceedings of 2004 conference of the North American Fuzzy Information Processing Society, Banff, Alberta, June 27-30, 2004, pp. 707-710.

76. Butz, C., and Lingras, P. 2004. Granular jointree probability propagation, Proceedings of 2004 conference of the North American Fuzzy Information Processing Society, Banff, Alberta, June 27-30, 2004, pp. 69-72.

77. Zhong, M., Sharma, S.C. and Lingras, P. 2004. Analyzing The Performance Of Genetically Designed Short-term Traffic Prediction Models Based On Road Types and Functional Classes, Proceedings of the Sixteenth International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems, Ottawa, Canada, Lecture Notes in Computer Science, 3029, Springer-Verlag, pp. 1133-1145.

78. Zhong, M., Sharma, S.C. and Lingras, P. 2004. Multiple-interval Urban Freeway Traffic Forecasting: Factor Approaches, Time Series Analysis versus Genetically Designed Regression and Time Delay Neural Networks, Proceedings of Annual Conference of the Canadian Society of Civil Engineering, Saskatoon, Saskatchewan, Canada, June 2-5, 2004.

79. Zhong, M., Sharma, S.C. and Lingras, P. 2004. Matching Patterns for Updating Missing Values of Traffic Counts, Proceedings of Annual Conference of the Canadian Society of Civil Engineering, Saskatoon, Saskatchewan, Canada, June 2-5, 2004, extended version appeared in Transportation Planning and Technology.

80. West, C., Jain A., Lingras, P. and Leonard, B. 2003. Supermarket Customer Attrition Analysis based on Cluster Membership Patterns, Proceedings of the First Indian International Conference on Artificial Intelligence, pp. 1132-1140.

81. Lingras, P., Yan, R., and Jain A. 2003. Clustering of Web Users: K-Means vs. Fuzzy C-Means, Proceedings of the First Indian International Conference on Artificial Intelligence, pp. 1062-1073.

82. Lingras, P., Yan, R., and Hogo, M. 2003. Rough Set Based Clustering: Evolutionary, Neural, and Statistical Approaches, Proceedings of the First Indian International Conference on Artificial Intelligence, pp. 1074-1087.

83. Lingras, P. and Yan, R., and West, C. 2003. Fuzzy C-Means Clustering of Web Users for Educational Sites, Proceedings of Sixteenth Conference of the Canadian Society of Computational Studies of Intelligence, AI 2003, Halifax, Canada, June 11-13, 2003, Advances in Artificial Intelligence Series 2671, Springer, Toronto, pp. 557-562.

84. Lingras, P. and Yan, R., and West, C. 2003. Comparison of Conventional and Rough K-Means Clustering, Proceedings of the 9th. International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, Chongqing, P. R. China, Lecture Notes in Artificial Intelligence Series, 2639, Springer, pp.130-137.

85. Lingras, P., Hogo, M., Snorek, M., and Leonard, B. 2003. Clustering Supermarket Customers using Rough Set Based Kohonen Networks, Proceedings of Fourteenth International Symposium on Methodologies for Intelligent Systems, Maebashi City, Japan, October 28-31, 2003, Lecture Notes in Artificial Intelligence Series, 2871, Springer, pp.169-173.

86. Hogo, M., Snorek, M., and Lingras, P. 2003. Temporal Web Usage Mining, Proceedings of 2003 IEEE/WIC International Conference on Web Intelligence, WI2003, Halifax, Canada, pp. 450-453.

87. Zhong, M. Lingras, P. and Liu Z. 2003. Differentiating True Zero Hourly Volumes with Missing Values and their Distributions on Different Types of Roads, Proceedings of Annual Conference of the Canadian Society of Civil Engineering, Moncton, New Brunswick, Canada, June 4-7, 2003.

88. Zhong, M., Sharma, S.C. and Lingras, P. 2003. Accuracy of Genetically Designed Models for Predicting Short-term Traffic on Rural Roads, Proceedings of Annual Conference of the Canadian Society of Civil Engineering, Moncton, New Brunswick, Canada, June 4-7, 2003.

89. Lingras, P. and Yao, Y.Y., 2002. Time complexity of Rough Clustering: GAs Versus K-Means, Proceedings of Third International Conference on Rough Sets and Current Trends in Computing (RSCTC 2002), Malvern, PA, USA.

90. Lingras, P. 2002. Rough Set Clustering for Web Mining, Proceedings of 2002 IEEE International Conference on Fuzzy Systems, Honolulu, Hawaii, May 12-17, 2002.

91. Lingras P. and Young, L., 2001. Multi-criteria Time-Series based Clustering of Supermarket Customers using Kohonen Networks. Proceedings of the 2001, International Conference on Artificial Intelligence (IC-AI'2001): June 25-28, 2001, Las Vegas, Nevada, USA, Vol. I, pp. 158-164.

92. Lingras, P. and Mountford, P. 2001.Time Delay Neural Networks Designed Using Genetic Algorithms for Short Term Inter-City Traffic Forecasting Engineering of Intelligent Systems: the proceedings of The Fourteenth International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems, Budapest, Hungary, L. Monostori, J. Vancza & M. Ali (Eds.), Lecture notes in AI 2070, Springer, pp. 290-299.

93. Xiao, Y., Lingras, P., and Gao, Q. 2000. Asthma Data Mining: An Experimental Comparison of Statistical Method and Neural Networks, *Proceedings of the IASTED International Conference on Neural Networks* (*NN'2000*), May 15-17, 2000, Pittsburgh, pp. 20-23.

94. Lingras, P. 2000. Evolutionary Information Retrieval, *Proceedings of the Fifth Joint Conference on Information Sciences*, Vol. I, Atlantic City, Feb.27-March 3, 2000, pp.166-169.

95. Lingras, P. and Davies, C. 1999. Rough Genetic Algorithms, New directions in Rough Sets, and Granular-Soft Computing, (Ed. N. Zhong, A. Skowron, S. Ohsuga), Proceedings of 7th International Workshop RSFDGrC'99, Yamaguchi, Japan, Lecture Notes in Artificial Intelligence 1171, Springer, pp. 38-46. An extended version of this paper was published in Computational Intelligence.

96. Lingras, P. and Yao, Y.Y. 1999. Neural Networks As Queries For Linear And Non-Linear Retrieval Models, *Proceedings of the 5th International Conference of the Decision Sciences Institute*, Athens, Greece, pp. 1394-1396.

97. Lingras, P. and Mannella, R. 1999. Effect Of Weather On Prediction Of Electricity Demand, *Proceedings of the 5th International Conference of the Decision Sciences Institute*, Athens, Greece, pp. 574-576.

98. Lingras, P. and Sharma S. 1999. Short-Term Traffic Volume Forecasts: Existing And Future Research, *Proceedings of the Annual Conference of Canadian Society of Civil Engineers,* Regina, Saskatchewan, IV, pp. 429-438.

99. Lingras, P., Sharma S., Osborne, P. and Kalyar, I. 1998. Prediction of Next Day Traffic Volume Using Artificial Neural Networks, *Proceedings of the First International Conference on New Information Technologies for Decision Making in Civil Engineering,* Montreal, pp. 1439-1450.

100. Lingras, P., Sharma S. and Kalyar, I. 1998. Prediction of Recreational Traffic on Sunday Afternoons Using Neural Network Techniques, *Proceedings of the Conference of Canadian Society of Civil Engineers,* Halifax, Nova Scotia, June, pp. 97-107.

101. Sharma S., Lingras, P. and Xu, F. 1998. Estimation of Annual Average Daily Traffic Using Neural Networks, *Proceedings of the Conference of Canadian Society of Civil Engineers,* Halifax, Nova Scotia, June, pp. 109-119.

102. Thompson, D. J. and Lingras, P. 1998. Input Models of Neural Networks for the Prediction of Traffic Volume Time Series, *Proceedings of the Conference of Canadian Society of Civil Engineers,* Halifax, Nova Scotia, June, pp. 75-86.

103. Lingras, P.J and Mannella R. J. 1997. Prediction of Electricity Demand Utilizing the Previous Day's Summative Historical Data, *Proceedings of the Fifth International Conference on Computing in Urban Planning and Urban Management (CUPUM'97)*, Mumbai(Bombay), India, pp. 60-69.

104. Lingras, P.J, Osborne P. and Thompson, D. 1997. Internal Structure of Neural Networks for the Prediction of Traffic Volume Time Series, *Proceedings of the Fifth International Conference on Computing in Urban Planning and Urban Management (CUPUM'97)*, Mumbai(Bombay), India, pp. 124-133.

105. Lingras, P.J and Sharma, S.C.1997. Determination of Traffic Volume Parameters Using Neural Networks, *Proceedings of the Fifth International Conference on Computing in Urban Planning and Urban Management (CUPUM'97)*, Mumbai(Bombay), India, pp. 226-234.

106. Lingras, P.J and Osborne P. 1997. Effect of Noise on Regression and Neural Network Predictions, *Proceedings of the Conference of Canadian Society of Civil Engineers,* Sherbrooke, Quebec, June, pp. 331-339.

107. Lingras, P.J and Osborne P. 1997. Linearity in Daily Traffic Volume Time Series, *Proceedings of the Conference of Canadian Society of Civil Engineers,* Sherbrooke, Quebec, June, pp. 341-350.

108. Lingras, P. 1997. Comparison of neofuzzy and rough neural networks, *Proceedings of the fifth international workshop on rough sets and soft computing (RSSC'97) in the Third Joint Conference on Information Sciences,* Durham, North Carolina, March, pp. 259-262.

109. Lingras, P. 1996. Belief and Probability Based Database Mining, *Proceedings of the Ninth Florida Artificial Intelligence Symposium (FLAIRS'96)* , Key West (Florida), pp. 316-320.

110. Lingras, P. 1996. Unsupervised Learning Using Rough Kohonen Neural Network Classifiers, *Proceedings of Symposium on Modelling, Analysis and Simulation* , CESA'96 IMACS Multiconference, Lille (France), pp. 753-757.

111. Lingras, P. 1996. Rough Neural Networks, *Proceedings of the International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems* (*IPMU'96*) , Granada (Spain), pp. 1445-1450.

112. Lingras, P. 1996. Comparison of Statistical Methods and Neural Networks for Traffic Engineering Analysis, *Proceedings of the First Canadian Society of Civil Engineers Transportation Specialty Conference*, Edmonton, Alberta, May 29 - June 1, Vol. IIIa, pp. 467-479.

113. Lingras, P. 1996. Choice of Classification Parameters on Traffic Estimation Using Neural Computing, *Proceedings of the First Canadian Society of Civil Engineers Transportation Specialty Conference*, Edmonton, Alberta, May 29 - June 1, Vol. IIIa, pp. 503-510.

114. Lingras, P., and Yao, Y.Y. 1995. Belief functions in rough set models. *Proceedings of the 2nd Annual Joint Conference on Information Sciences*, P.P. Wang (Ed.), Wrightsville Beach, North Carolina, USA, pp. 190-193.

115. Lingras, P. and Adamo, M. 1995. Estimation of AADT Volume Using Neural Networks, C*omputing in Civil and Building Engineering*, Pahl & Werner (Eds.), pp. 1355-1362.

116. Lingras, P. 1995. Plausibilistic Rules Extraction from Incomplete Databases Using Non-Transitive Rough Set Model, *Proceedings of 23rd Annual Computer Science Conference Workshop on Rough Set and Database Mining*, ACM, March 2, pp. 1-12.

117. Lingras, P. 1994. Rough Set Theoretic Operators And Nonmonotonic Preference Structures, *Proceedings of the Third International Workshop on Rough Sets and Soft Computing*, Nov. 10-13, San Jose, California, pp. 134-141.

118. Lingras, P. and Sharma S.C. 1994. A Knowledge-based System for Traffic Engineering Analysis, *Proceedings of Canadian Society of Civil Engineers*, Winnipeg, June 1-4, pp. 599-608.
119. Lingras, P. 1994. Scientific Analysis Language for Retrieval and Analysis of Knowledge, *Intelligent Systems: Third Golden West International Conference* (Ed. E.A. Yfantis), Kluwer Academic Publishers, pp. 85-94.
120. Chau, Lingras, P. and Wong, S. K. M., 1993. Upper and Lower Entropies of Belief Functions, *Methodologies of Intelligent Systems 8* (Ed. Z.W.Ras and J. Komorowski), North Holland.
121. Lingras, P. 1993. Combination of Evidence in Rough Set Theory, *Computing and Information: ICCI'93, Fifth International Conference* (Ed. O. Abou-Rabia, C.K. Chang, W.W. Koczkodaj), IEEE Computer Society Press, pp. 289-293.
122. Lingras, P. 1993. Nonmonotonic Comparative Probability Structures, *Proceedings of the Sixth Annual Florida AI Research Symposium*, Fort Lauderdale, April 18-21, pp. 147-151.
123. Wong, S.K.M., Lingras, P. and Yao, Y.Y., 1991. Propagation of Preference Relations in Qualitative Inference Networks, The *Proceeding of 12th International Joint Conference on Artificial Intelligence*, Vol. 2., (Ed. J. Mylopoulos and R. Reiter), August 24-30, Sydney, Australia, pp. 1204-1209.
124. Wong, S.K.M., Yao, Y.Y. and Lingras, P., 1991. Compatibility of Quantitative and Qualitative Representations of Belief, *Uncertainty in AI: Proceedings of the Seventh Conference*, (Ed. D'Ambrosio, B., Smets, P. & Bonissone, P.), July 13-15, Los Angeles, Morgan Kaufmann Publishers, Inc., pp. 418-424.
125. Wong, S.K.M., Lingras, P. and Yao, Y.Y., 1991. Towards Implementing Valuation Based Systems with Relational Databases, *Methodologies for Intelligent Systems 6*, (Ed. Z.W. Ras,), North Holland, New York, pp. 172-182.
126. Yao, Y., Wong, S. K. M. and Lingras, P., 1990. A Decision-Theoretic Rough Set Model, *Methodologies for Intelligent Systems 5*, (Ed. Z.W. Ras, M. Zemankova, M. Emrich), North Holland, New York, pp. 17-24.
127. Wong, S. K. M., Lingras, P., 1990. Generation of Belief Functions from Qualitative Preference Relations, *The Proceedings of the Third International Conference on Information Processing and Management of Uncertainty in Knowledge-based Systems*, Paris, France, July 2-6, pp. 450-459.
128. Wong, S. K. M., Lingras, P., 1990. Combination of Evidence Using the Principle of Minimum Information Gain, *The Proceedings of the Sixth Conference on Uncertainty in AI*, Cambridge, Mass., July 27-29, pp. 49-51.
129. Lingras, P., Wong S.K.M. and Yao, Y.Y. 1990. Probability Estimation in Intelligent Information Systems, *Proceedings of IASTED International Symposium on Expert Systems Theory & Applications*, Los Angeles, December 12-15.
130. Lingras, P., Sharma, S. C., 1987. Cost of Comfort and Convenience: A Proposed Model for Use with the 1985 Highway Capacity Manual, *in Proceedings of the Road and Transportation Association of Canada Conference*, Saskatoon, Canada, September 14-17.
131. Wong, S. K. M., Lingras, P., 1989. The Compatibility View of Shafer-Dempster Theory Using the Concept of Rough Set, *Methodologies for Intelligent Systems 4*, (Ed. Z.W. Ras), North Holland, New York, pp. 33-42.
132. Lingras, P., Wong, S. K. M., 1988. An Optimistic Rule for Accumulation of Evidence, *Methodologies for Intelligent Systems III* (Eds. Z.W. Ras, L. Saitta), North Holland, New York, pp. 60-69.
133. Sharma, S. C., Lingras, P., and Werner, Al., 1986. Some Highway Economic Analysis Experiences with the 1985 U.S. Highway Capacity Manual, *presented at the Transportation Research Board Annual Conference*, Washington D.C., January 12-16.
134. Sharma, S.C., Lingras, P., 1986. A Comparative Economic Analysis for Highway Reconstruction Projects: New Vs. Old HCM, *In the Institute of Transportation Engineers Proceedings*, 56th Annual Meeting, Indianapolis, U.S.A., September 7-11.
135. Sharma, S.C., Lingras, P. and Hassan, M.U., 1986. A Note on the Driver Population Factor in the New U.S. Highway Capacity Manual, i*n the proceeding of the Canadian Society of Civil Engineers Annual Conference*, Toronto, May 12-16.

Non-Refereed Conference Proceedings: 9

1. Kadam, R. and Lingras, P. 2023. Clusters Evolution Before, During and After the Pandemic, International Joint Conference on Rough Sets (IJCRS 2023), Poland.
2. Akiyama, A., Penny, D., Kotiya, A., Lingras, P. 2018. Backpropagation of fuzzy alerts in a supply chain, Canadian Operational Research Society Annual Conference - CORS2018.
3. MacDonald, R., Qin, Z., Hillard, T., Lingras, P. 2018. Predicting Comfort Levels for Building Energy Management, Canadian Operational Research Society Annual Conference - CORS2018.
4. MacDonald, R., Lingras, P. 2018. Predicting Software Defects based on Static Analysis Metrics, Canadian Operational Research Society Annual Conference - CORS2018.
5. Lingras, P., Trabelsi, S., and Elouedi, Z., 2011. Belief Classification Approach based on Dynamic Core for Web Mining database, International workshop of Rough set Theory.
6. Lingras, P., Joshi, M., and Rao, C.R., 2011. Fuzzy Rough Correlation Factor, International workshop of Rough set Theory.
7. Lingras, P., Butz, C.J., Yan, W., Konkel, K., and Yao, Y., 2008. On Variable Elimination in Discrete Bayesian Network Inference, 9th World Meeting of the International Society for Bayesian Analysis (ISBA08), pp. 96-97.
8. Lingras, P. 2007. Neighbourhood Sets based on Web Usage Mining, Proceedings of 2007 North American Fuzzy Information Processing Society Conference, pp. 659-664.
9. Lingras, P. and Butz, C.J. 2006. Evaluation and Simplification of rules created by 1-v-r Rough SVM multiclassification, Proceedings of 2006 North American Fuzzy Information Processing Society Conference.

Other Non-Refereed Publications: 6

1. Lingras, P., 2000. Professional Development for Faculty: A Time for Reflection, *Teaching and Learning at Saint Mary's*, Vol. 11, No. 1.
2. Lingras, P., 1999. Survey of Computer Educational Institutions and Industry in India, Proceedings of the South Asia Council Conference, Canadian Asian Studies Association, Montreal.
3. Lingras, P., 1991. *Qualitative and Quantitative Reasoning in Intelligent Information Systems*, unpublished Ph.D. thesis, Department of Computer Science, University of Regina, Regina, Sask.
4. Lingras, P., and Sharma, S.C., 1989. *Weigh-in-motion System Evaluation*, project report prepared for Saskatchewan Highways and Transportation.
5. Lingras, P., 1988. *Different Perspectives of Probability for Information Science*, unpublished M. Sc. thesis, Department of Computer Science, University of Regina, Regina, Sask.
6. Lingras, P., 1986. *The New Highway Capacity Manual and Economic Analysis for Rural Roads*, unpublished M. Sc. thesis, Faculty of Engineering, University of Regina, Regina, Sask.

Invited talks: 51
(Based on papers listed earlier. The objective is dissemination of research hence some of the topics tend to repeat)

1. Lingras P (2024). Advances in Rough and Soft Clustering: meta-clustering, Global AI Summit 2024, Bennett University, New Delhi, India
2. Lingras P (2020). Advances in Rough and Soft Clustering: meta-clustering, dynamic clustering, data-stream clustering, Bharathiar University, Coimbatore-641 046, Tamil Nadu, India Department of Statistics International Webinar on Data Science using Python
3. Lingras P (2020). Profiling Retail Customers using Unsupervised Learning: A Hands-on Experience, Faculty Development Workshop, Symbiosis International University, Pune, July 10-11, 2020.
4. Lingras P (2020). Rough Clustering and its Applications, Faculty Development Workshop, University of Mumbai, India, June 07, 2020.
5. Second Order Data Mining of Financial Transaction Time-Series for Fraud Detection and Improved Customer Relationship Management Lingras P (2017). Frontiers of Operations Research and Business Studies (FORBS 2018), 11-13 October 2018, Calcutta Business School Kolkata, India

6. Lingras P (2018). Data Mining of Financial Transaction Time-Series for Fraud Detection, Canada Revenue Agency Criminal Investigations Division - Halifax October 3rd 2018, Symposium Agenda The Westin Nova Scotian.

7. Lingras P (2018). Advances in Rough and Soft Clustering: meta-clustering, dynamic clustering, data-stream clustering, IV International Conference on Informatics and Computer Sciences - CICCI 2018, Informatica, 17th International Convention and Fair, Havana, Cuba, March 19-23, 2018.

8. Lingras P (2017). Rough and Soft Clustering, GLS (Gujrat Law Society) University, Ahmedabad, Gujrat, August 17, 2017.

9. Lingras P (2016). Practical Applications of Data Mining at National Institute of Technology, Goa, India Dec 5-9, 2016

10. Lingras P (2016). Advances in Rough and Soft Clustering: meta-clustering, dynamic clustering, data-stream clustering, International Joint Conference on Rough Sets October 7-9, 2016, Santiago, Chile.

11. Lingras P (2015). Recursive and iterative clustering in granular hierarchical, network, and temporal datasets, 2015 IEEE International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN 2015) to be held during November 20-22, 2015

12. Lingras P (2015). Clustering in Temporal Environment: Retail and Financial applications 4th International Conference on "Frontiers in Intelligent Computing, Theory and Application" (FICTA 2015), National Institute of Technology, Durgapur, India, November 16-18, 2015.

13. Lingras P (2014). Big Data Analytics, International Conference on Information and Communication Technology for Competitive Strategies (ICTCS - 2014), Udaipur, India, 14-16 November, 2014.

14. Lingras P (2014). Big Data Analytics, First International Conference on Rough Sets and Knowledge Technologies (ICRSKT), Jawaharlal Nehru University of Technology, Hyderabad, 9-11 November, 2014.

15. Lingras P (2014). Rough Cluster Quality Index Based on Decision Theory, International Conference on Computational Intelligence (ICCIâ€™14) University of Mumbai, India, March 21-22 2014.

16. Lingras P (2013). Recursive and iterative clustering in granular hierarchical, network, and temporal datasets, delivered at the Workshop on Big Data: A Soft Computing Perspective held in conjunction with PREMI 2013 at Indian Statistical Institute (ISI), Kolkata on December 14, 2013.

17. Lingras P (2013). Recursive and iterative clustering in granular hierarchical, network, and temporal datasets, delivered online at the Workshop on Rough Set and Knowledge Technologies, Jawaharlal Nehru Technical University, Hyderbad, India, November 10, 2013.

18. Lingras P (2013). Recursive and iterative clustering in granular hierarchical, network, and temporal datasets, Jodrey School of Computer Science, Acadia University, Wolfeville, Nova Scotia, September 27, 2013.

19. Lingras P (2013). Recursive and iterative clustering in granular hierarchical, network, and temporal datasets, AICTE sponsored faculty development program on Machine Learning and Data Mining approaches: A research perspective, March 30, 2013. College of Engineering Pune, Pune, India.

20. Lingras P (2013). Recursive and iterative clustering in granular hierarchical, network, and temporal datasets, Refresher Course on the Recent Trends in ICT, January 5, 2013, University of Mumbai, Mumbai, Maharashtra.

21. Lingras P (2012). Delivered a two day Research Workshop on "Data Mining using Soft Computing: Applications in Business, Finance, Engineering, Web, and Mobile phones", February 3-4, Kongu Engineering College, Perundurai, Tamilnadu

22. Lingras P (2012). Rough Cluster Quality Index Based on Decision Theory, International Conference on Perspectives of Computer Confluence with Sciences, December 10-12, Nowrosjee Wadia College, Pune.

23. Lingras P (2012). Rough Cluster Quality Index Based on Decision Theory, Workshop on Fuzzy Logic and Related Topics, March 29-30 2012, Modern College, Pune, Maharashtra

24. Lingras P (2012). Rough clustering and its applications, Workshop on Fuzzy Logic and Related Topics, March 29-30 2012, Modern College, Pune, Maharashtra

25. Lingras P (2012). Rough Cluster Quality Index Based on Decision Theory, International Conference on Pattern Recognition, Informatics, and Medical Engineering, Periyar University, Salem, Tamilnadu

26. Lingras P (2012). Research in Soft Computing, April 27, University of Pune, Pune, Maharashtra.

27. Lingras P (2012). Research in Soft Computing, May 6, University of Mumbai, Mumbai, Maharashtra.

28. Lingras P (2012). Rough clustering and its applications, March 9, 2012, Jawaharlal Nehru University, New Delhi.

29. Lingras P (2012). Rough Cluster Quality Index Based on Decision Theory, March 7, 2012, Jawaharlal Nehru University, New Delhi.
30. Lingras P (2011). Rough clustering and its applications, International Workshop on 'Fuzzy sets, Rough Sets: Theory and Applications', November 21-25, 2011. National Institute of Technology, Durgapur, West Bengal.
31. Lingras P (2011). Rough clustering and its applications, Workshop on Soft Computing and Knowledge Mining March 29-30 2011, Department of Computer Applications & Mathematics, Maulana Azad National Institute of Technology , Bhopal.
32. Lingras P (2011). Dual rough support vector regression, Workshop on Soft Computing and Knowledge Mining March 29-30 2011, Department of Computer Applications & Mathematics, Maulana Azad National Institute of Technology , Bhopal.
33. Lingras P (2011). Rough clustering and its applications, Workshop series on Soft Computing, March 31, Post Graduate Department of Computer Science & Engineering, NRI Institute of Information Science & Technology, Bhopal-MP-INDIA
34. Lingras P (2011). Research in data mining, Refresher Course in Computer Science, Department of Computer Science, University of Pune, March 28.
35. Lingras P (2011). Soft clustering, Refresher Course in Computer Science, Department of Computer Science, University of Pune, March 28.
36. Lingras P (2011). Classification using R, Refresher Course in Computer Science, Department of Computer Science, University of Pune, March 27th.
37. Lingras P (2011). Clustering using R, Refresher Course in Computer Science, Department of Computer Science, University of Pune, March 27th.
38. Lingras P (2011). Rough clustering and its applications, Workshop on Research Areas in Soft Computing RASCOMP. 2011, March 18, 2011 organized by Department Of Computer Technology, Kavikulguru Institute Of Technology & Science, Ramtek, Nagpur.
39. Lingras P (2011). Dual rough support vector regression, Workshop on Research Areas in Soft Computing RASCOMP. 2011, March 18, 2011 organized by Department Of Computer Technology, Kavikulguru Institute Of Technology & Science, Ramtek, Nagpur.
40. Lingras P (2011). Rough clustering and its applications, Indian Statistical Institute, Kolkata on March 2.
41. Lingras P (2011). Rough sets, Indian Statistical Institute, Kolkata on Feb 28.
42. Lingras P (2011). Dual rough support vector regression, National Conference on .Emerging Trends in Soft Computing. (NCETSC 11) in Pune from Feb 1-3.
43. Lingras P (2011). Rough support vector machines, Pune University Computing Science department on February 5.
44. Lingras P (2011). Rough sets, National Conference on .Emerging Trends in Soft Computing. (NCETSC 11) in Pune from Feb 1-3.
45. Lingras P (2011). Rough clustering and its applications, International Conference on Knowledge Engineering in Aurangabad from Jan 29-31.
46. Lingras P (2011). Dual rough support vector regression, International Conference on Knowledge Engineering in Aurangabad from Jan 29-31.
47. Lingras P (2010). Dual rough support vector regression, Colloquium on Computational Intelligence (Rough Set based approach) (in Connection to DCIS Foundation Day Celebrations), Central University of Hyderabad, March 23-24, 2010
48. Lingras P (2010). Conservative and Aggressive Dual Rough SVR Modeling, Jodrey School of Computer Science, Acadia University, Wolfville, NS, Feb 12, 2010.
49. Lingras P (2009). Introduction to Rough and Fuzzy sets, International Symposium on Soft computing on December, 1-2, 2009
50. Lingras P (2009). Introduction to Rough and Fuzzy sets, International Workshop on Rough Set, Fuzzy Set and Soft Computing, July 7-8, 2009
51. Lingras P (2007). Conventional, Fuzzy, and Interval Set Based Temporal Cluster Migration Matrices, Jodrey School of Computer Science, Acadia University, Wolfville, NS, September 13, 2007.
52. Lingras P (2004). Conventional, Fuzzy, and Interval Set Based Temporal Cluster Migration Matrices, Department of Computer Science, Hong Kong Baptist University, January, 2004.

List of Students

List of Research Students

Post-doctoral students:	2
Ph.D. students (including two visiting scholars):	13
M.Sc. students:	122 (15 theses, 107 projects)
B.Sc. students (thesis option):	12
B.Sc. students (non-thesis option):	37
Total	**186**

Post-doctoral students (Total 2)

1. Kadam, R. (2021-23) Post-doctoral fellow (Saint Mary's University), Co-supervision with Dr. Joyline Makani, Evidence-driven strategies for successful schooling outcomes of learners of African descent in Nova Scotia.
2. Joshi, M. (2009) Post-doctoral fellow (University of New Brusnwick), Temporal association mining.

Ph.D. students (Total 13)

1. Neveditsin, N. (2023-date) Ph.D. (Saint Mary's University) Co-Supervisor with Dr. Vijay Mago. Domain-specific applications of language models.
2. Chavan, S. (2020-date) Ph.D. (Symbiosis International (Deemed University)) Co-supervisor with Dr. Preeti Mulay. Design, Development and Implementation of Quantum Incremental Clustering Algorithm Framework for Exploration of Unsupervised Data.
3. Chandrasekaran, D. (2021-2022) Ph.D. (Saint Mary's University) Co-Supervisor with Dr. Vijay Mago Ethics in Natural Language Processing, Withdrew without completion.
4. Fisher, A. (2021-2024) Ph.D. (Saint Mary's University) Co-Supervisor with Dr. Vijay Mago Design Automation and Optimization Using Artificial Intelligence.
5. Rao, G. (2019-2024) Ph.D. (Saint Mary's University) Co-Supervisor with Dr. Vijay Mago, Technology Advancement in existing AED.
6. Ghamari, R. (2018-2019 leave of absence) Ph.D. (Saint Mary's University) Supervisor Soft clustering to improve engineering optimization.
7. Liu, G. (2018-2019 did not finish) Ph.D. (Saint Mary's University) Supervisor Two-stage data mining by using clustering to improve classification and association.
8. Naik, S. (2017-date) Ph.D. (National Institut of Technology, Goa, India) Co-supervisor Extreme and Deep Learning for Image Recognition.
9. Ammar, A. (2011-2016) Ph.D. (Larodec, Institut Superier de Gestion de Tunis, Tunisia) Co-supervisor Possibilistic Rough K-Modes.
10. Trabelsi, S. (2008-2011) Ph.D. (Larodec, Institut Superier de Gestion de Tunis, Tunisia) Co-supervisor Belief rough set classifier.
11. Chen, Min (2008-2009) Ph.D. (Tongji University, Shanghai, China) Visiting student-collaborator on joint publications, Soft and Crisp Cluster Quality based on Cost-benefit Analysis.
12. Hogo, M. (2002-2005) Ph.D. (Czech Tech. University) Visiting student-collaborator on joint publications, Temporal variations in interval clusters obtained from Kohonen self-organizing maps.
13. Zhong, M. (2000-2004) Ph.D. (University of Regina), Missing value analysis in traffic engineering.

M. Sc. Project Students (Total 121)

Thesis: 15, projects: 106
1. Chaudhari, Aditya v. (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: DevOps of Descriptive and Predictive Analytics for Efficient Energy Supply and Work and Asset Management
2. Chelladurai Simon, R J (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: DevOps of Descriptive and Predictive Analytics for Efficient Energy Supply and Work and Asset Management
3. Gupta, Rakshit (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: Artinus Cost-effective NLP solutions for digitization, translation, and insights of domain specific corpora
4. Jain, Jeeten K. (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: Enhancing Medical Data Analysis and Processing
5. Jebasingh, Jerry Caleb (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: DevOps of Descriptive and Predictive Analytics for Efficient Energy Supply and Work and Asset Management
6. Koirala, Kritika (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: Health and Wellness App – Data Analytics and User Experience
7. Leung, Ka Man (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: Automated assessment of reading competency
8. Mehta, Neeyati (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: Health and Wellness App – Data Analytics and User Experience
9. Mehta, Raj (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
   Project: Financial Portfolio Reconciliation using Deconstructed Deep Learning
10. Phan, Nghia M. (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
    Project: Automated assessment of reading competency
11. Prajapati, Vrushali (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
    Project: Sentiment Analysis to Replace Rigid Surveys into Automated Adaptive Interviews
12. Shafi, Noman (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
    Project: Financial Portfolio Reconciliation using Deconstructed Deep Learning
13. Shaikh, Zaid (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
    Project: Health and Wellness App – Data Analytics and User Experience
14. Singh, Siddharth (May 2024 - December 2024) M.Sc. (Saint Mary's University) Supervisor
    Project: Sentiment Analysis to Replace Rigid Surveys into Automated Adaptive Interviews
15. Alapatt, John J. (May 2023 - December 2023) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine Learning at Acuicy
16. Dalal, Shweta (May 2023 - December 2023) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine Learning at Citco
17. Mascarenhas, Rishan D. (May 2023 - December 2023) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine Learning at Citco
18. Prabhakar, Shiney (May 2023 - December 2023) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine Learning at NS Power
19. Singh, Amanpreet (May 2023 - December 2023) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine Learning at Acuicy
20. Singh, Kamaljeet (May 2023 - December 2023) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine Learning at NS Power
21. Srinivasan, Hemalatha (May 2023 - December 2023) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine Learning at Meraki
22. Wadhwa, Sharlene K. (May 2023 - December 2023) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine Learning at NS Liquor Corporation
23. Altaf, Rehnuma (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor
    Project: Retail Analytics
24. Bana, Prashant (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor

Project: Social Media Analytics

25. Joshi, Advait R. (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Social Media Analytics

26. Katharotiya, Pratik Kanubhai (May 2022 - December 2022) M.Sc. (Saint Mary's University)
Supervisor
Project: Student Success Analytics

27. Murali, Prabav (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Financial Portfolio Analytics

28. Murthy, Tanmaya (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Deep Learning Tools Development

29. Pampatwar, Pandurang Anil (May 2022 - December 2022) M.Sc. (Saint Mary's University)
Supervisor
Project: Financial Portfolio Analytics

30. Panchal, Harsh Rasiklal (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Healthcare Analytics

31. Singh, Karnjot (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Student Success Analytics

32. Su, Qing (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Healthcare Analytics

33. Vaidya, Parth Tarak (May 2022 - December 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Electricity Distribution Analytics

34. Varasadiya, Viren Vinubhai (May 2022 - December 2022) M.Sc. (Saint Mary's University)
Supervisor
Project: Electricity Distribution Analytics

35. Gnanavel, Praveen Kumar (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at Perennia

36. Krishnan, Anoop (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at NxtGen

37. Kulathu, Rajshekar (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at Bluelight

38. Li, Wenshuo (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at SafePath

39. Mashalkar, Akshaykumar (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at CRA

40. Patel, Mitkumar B. (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at Citco

41. Reginold, Fabian Vaniyamveetil (August 2021 - April 2022) M.Sc. (Saint Mary's University)
Supervisor
Project: Machine learning at Lexington

42. Roy, Akhil (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning

43. Santhanam, Hemavathi (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at Citco

44. Sekar, Ramya (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at Agyle

45. Tayal, Shivani (August 2021 - April 2022) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at Citco

46. Gupta, Samarth (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning in fiancial trading at Citco

47. Dhillon, Jagwinder Kaur (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Internet Of Things Research at Perennia

48. Hardat, Anshul (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Internet Of Things Research at Perennia

49. Katragadda, Vidhyadhara Teja (May 2020 - December 2020) M.Sc. (Saint Mary's University)

Supervisor
Project: Internet Of Things Research at Perennia

50. Khadka, Bijay (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Data visualization and machine learning of student demographics and success

51. Mahajan, Jatin (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning in fiancial trading at Citco

52. Poddar, Ashit (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Internet Of Things Research at Perennia

53. Santhosh Jaya, Abhijith (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Internet Of Things Research at Perennia

54. Suthar, Aastha K. (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Internet Of Things Research at Perennia

55. Yeolekar, Saurabh S. (May 2020 - December 2020) M.Sc. (Saint Mary's University) Supervisor
Project: Internet Of Things Research at Perennia

56. Kadamgode Puthenveedu, Sabareeshnath (August 2020 - March 2021) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning in fiancial trading at Citco

57. Morishetty, Manoj K. (August 2020 - March 2021) M.Sc. (Saint Mary's University) Supervisor
Project: Internet Of Things Research at Hanatech

58. Tandon, Aditya (August 2020 - March 2021) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning in fiancial trading at Citco

59. Nomula, Rahul (August 2020 - March 2021) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning platform development at Missing Link Technologies

60. Bandyopadhyay, Parijat (August 2020 - March 2021) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning in fiancial trading at Citco

61. Campbell, Jessica (August 2020 - March 2021) M.Sc. (Saint Mary's University) Supervisor
Project: Effect of free trade on business opportunities

62. Bommu, Goutham (August 2020 - March 2021) M.Sc. (Saint Mary's University) Supervisor
Project: Internet Of Things Research at Hanatech

63. Jain, Sachit (August 2020 - March 2021) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning platform development at Missing Link Technologies

64. Ahuja, Bhavya (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Inventory Management System - Data Visualization

65. Cai, Qian (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Inventory Management System - Predictive Analytics

66. Gupta, Ankush (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Data Visualization at Hanatech

67. Manivannan, Santhamohan (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Data Visualization at Hanatech

68. Durgam, Narasimha Rao (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Data Visualization at Hanatech

69. Magray, Shahzan (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Inventory Management System - Business Analysis

70. Nomula, Rahul (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Business Analytics and Machine Learning at Missing Link Technologies

71. Oberoi, Ravneet Singh (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Inventory Management System - Quality Assurance

72. Punnoli, Sreeraj (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Predictive Analytics at SimpleBI

73. Vadsaria, Sonam M. (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Business analytics at Nova Scotia Power

74. Verma, Bharat Bhushan (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
Project: Machine learning at Dilytics

75. Govindan, Vinay (May 2019 - December 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine learning at HomeExcept
76. Eslami, Arsalan (May 2018 - date) M.Sc. (Saint Mary's University) Supervisor
    Project: Real Estate Analytics
77. Abdrashitov, Ildar (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Data Analytics at Missing Link Technologies
78. Arantes, Daniel d. (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Data Analytics at Atlantic Lottery
79. Bhagat, Sankalp K. (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Real Estate Analytics
80. Cornish, Aaron (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Human Resources Analytics at JDI Saint John
81. Dsouza Bhatt, Divya M. (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Human Resources Analytics at JDI Saint John
82. Govindaraj, Dinesh Kumar (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine learning and Analytics at HomeExcept
83. LaPlante, Jennifer (Sept 2018 - April 2019) M.Sc. (Saint Mary's University) Supervisor
    Project:
84. Malone, Duane (Sept 2018 – April 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Churn Analysis at Atlantic Lottery and Day trading Analytics
85. Maruf, Md. Wahid Tausif (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Data Visualization at HomeExcept
86. McCavour, Chris (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Human Resources Analytics at JDI Saint John
87. Vechoor Padmanabhan, Lourdes R. (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Data Visualization of IoT stream at Hanatech
88. Weston, Joshua (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Data Analtyics at JDI Moncton
89. Yin, Yifan (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Web and Data Analytics for NGO and Tencent
90. Singh, Yudhvir (Sept 2018 - Apr 2019) M.Sc. (Saint Mary's University) Supervisor
    Project: Machine learning for IoT Datastreams at Hanatech
91. MacDonald, R. (May 2017 - August 2018) M.Sc. (Saint Mary's University) Supervisor
    Thesis: Estimating type and number of faults in software development using machine learning.
92. Malloy, C. (May 2017 - date) M.Sc. (Saint Mary's University) Supervisor
    Thesis: Comparison of deep learning and sequential unsupervised and supervised learning.
93. Shah, M. (January - June 2018) M.Sc. (Saint Mary's University) Supervisor
    Machine learning for image recognition.
94. Padelkar, P. (January - May 2018) M.Sc. (Saint Mary's University) Supervisor
    Machine learning for image recognition.
95. Kaur, N. (May - December 2018) M.Sc. (Saint Mary's University) Supervisor
    Medical diagnosic system.
96. Akash, N. (October 2017 - May 2018) M.Sc. (Saint Mary's University) Supervisor
    Analysis and visualization of first call resolution.
97. Kalita, A. (Oct - Dec 2017) M.Sc. (Saint Mary's University) Supervisor
    M.Sc. project: Inventory prediction
98. Zhang, Z. (May - October 2017) M.Sc. (Saint Mary's University) Supervisor
    M.Sc. project: Correlating enrollment and gaming behaviour with machine learning.
99. Mullick, S. (May 2017 - date) M.Sc. (Saint Mary's University) Supervisor
    M.Sc. project: Predicting gaming behaviour with machine learning.
100. Acosta Vidales, A. (May 2017 - date) M.Sc. (Saint Mary's University) Supervisor
    M.Sc. project: Searchable Social and Environmental Impact Measurement Database.
101. Mahajan, K. (May 2017 - date) M.Sc. (Saint Mary's University) Supervisor

M.Sc. project: Data Warehousing and Prediction of Missing Values of Weather Data.
102. Karunakaran, V. (May 2017 - date) M.Sc. (Saint Mary's University) Supervisor
M.Sc. project: Matching JSON representations using text mining and preference ratings.
103. Bahri, M. (January - December 2016) M.Sc. (Larodec, Institut Superier de Gestion de Tunis, Tunisia) Co-supervisor
Thesis: Clustering data stream in a belief function framework.
104. Gopinath, R. (Sept 2016 - date) M.Sc. (Saint Mary's University) Supervisor
M.Sc. project: Optimizing shipping and handling in retail
105. Kotiya, A. (Sept 2016 - date) M.Sc. (Saint Mary's University) Supervisor
M.Sc. project: Detecting unusual patterns in time-series.
106. Pavlovski, I. (May-December 2016) M.Sc. (Saint Mary's University) Supervisor
M.Sc. project: Developing decision trees in knowledge cloud
107. Liu, Z. (May-December 2016) M.Sc. (Saint Mary's University) Supervisor
M.Sc. project: Dynamic clustering in a knowledge cloud
108. Mohammadi, M. (May-December 2016) M.Sc. (Saint Mary's University) Supervisor
M.Sc. project: Social and Environmental Impact of Co-operatives
109. Aldabaa, F. (May-December 2016) M.Sc. (Saint Mary's University) Supervisor
M.Sc. project: Social and Environmental Impact of Co-operatives (UI/UX)
110. Singh, G. (May-December 2016) M.Sc. (Saint Mary's University) Supervisor
M.Sc. project: Social and Environmental Impact of Co-operatives (Database)
111. Thompson, J. (2013-2016) M.Sc. (Saint Mary's University) Supervisor
Thesis: Monitoring Regional Power Generation and Consumption.
112. Suteanu, M. (2010-2014) M.Sc. (Saint Mary's University) Supervisor
Thesis: A Network-Based Approach to Earthquake Pattern Analysis
113. Heider, F. (2013-2014) M.Sc. (Saint Mary's University) Supervisor
Thesis: Temporal meta-clustering.
114. Sun, W. (2012-2015) M.Sc. (Saint Mary's University) Supervisor
Thesis: Classification of Temporal Events.
115. Penny, D. (2008-2012) M.Sc. (Saint Mary's University) Supervisor
Thesis: Oceanographic data management using LOBOviz.
116. Zhang, P. (2008-2010) M.Sc. (Saint Mary's University) Supervisor
Thesis: Inventory management using data mining: forecasting in retail industry.
117. Mizuhara, T. (2006-2009) M.Sc. (Saint Mary's University) Supervisor
Thesis: Modeling and evaluation of knowledge discovery in wholesale and retail industry.
118. Yan, R. (2002-2004) M.Sc. (Saint Mary's University) Supervisor
Thesis: Spatial and temporal data mining in a supermarket.
119. Xiao, Y. (1999-2000) M.Sc. (Dalhousie University) Co-supervisor
Thesis: A framework for discovering patterns and trends in asthma data.
120. Gopalkrishnan, S. (1998-2000) M.A.Sc. (University of Regina) Co-supervisor
Thesis: Prediction of short-term traffic volumes for applications in intelligent transportation systems.
121. Kalyar, I. (1997-1998) M.A.Sc. (University of Regina) Co-supervisor
Thesis: Short-term predictions of traffic on recreational roads.
122. Fei, X (1996-1998) M.A.Sc. (University of Regina) Co-supervisor
Thesis: Estimation of AADT using neurocomputing.

B.Sc./B.Tech students thesis option (Total 12)

1. Kapoor G (2016-2017) B.Sc. (Co-supervisor). Estimating Pore Fluid Saturation in an Oil Sands Reservoir using Ensemble Tree Machine Learning Algorithms
2. Glavin Wiechert (2015-2016) B.Sc. Identifying Users and Activities from Brain Wave Signals Recorded from a Wearable Headband
3. Rathinavel, K. (2011-2012) B.Tech. (Indian Institute of Technology, Gandhinagar), Recursive Clustering of Mobile Phone Users.
4. Nagrecha, S. (2011-2012) B.Tech. (Indian Institute of Technology, Gandhinagar), Comparison of Gene Coexpression and Bayesian Networks.

5. McLearn, G. (1998-1999) B.Sc, Neural network based agents for web searching.
6. Osborne, P (1996-1997) B.Sc. (Algoma University), Time-delay neural networks for traffic modeling.
7. Mannella, R. (1996-1997) B.Sc, Predictions of demand for electricity.
8. Lima, L. (1996-1997) B. Sc. (Algoma University), System analysis of an educational intranet.
9. Thompson, D. (1995-1996) B.Sc. (Algoma University, Supervisor), Traffic prediction using neural networks.
10. Adamo, M. (1994-1995) B.Sc. (Laurentian University, Supervisor), Neural net and Statistical time series modeling.
11. Calcagnini, C. (1993-1994) B.Sc. (Laurentian University, Supervisor), Comparison of neural net and statistical models.
12. Dale, B. (1993-1994) B.Sc. (Laurentian University, Supervisor), Interface development for a traffic information system.

B.Sc./B.Tech. students non-thesis option (Total 37)

1. Jean-Cédéric Blais (June 2023-Oct 2024) Development to Support First Nations and Municipal Policing
2. Pandey, B (May-Aug 2018) Medical diagnostic system.
3. Morgan, L-A. (May 2016-April 2017) Prioritized Sampling Using Clustering Ensemble.
4. Dua, D. (May-December 2016) Dynamic Clustering Assignments
5. Peter Lakner (May-Aug 2015) Optimizing plant settings using genetic algorithms, unsupervised, supervised learning
6. Zhiyun Zhong (Jan-Apr 2015) Identifying Users and Activities from Brain Wave Signals Recorded from a Wearable Headband
7. Shuai Zhao (Jan-Apr 2015) Identifying Users and Activities from Brain Wave Signals Recorded from a Wearable Headband
8. Runxing Zhou (Jan-Apr 2015) Identifying Users and Activities from Brain Wave Signals Recorded from a Wearable Headband
9. Zhixing Liu (Jan-Apr 2015) Identifying Users and Activities from Brain Wave Signals Recorded from a Wearable Headband
10. Zhicheng Yin (Jan-Apr 2015) Identifying Users and Activities from Brain Wave Signals Recorded from a Wearable Headband
11. Vaswani, S. (May-August 2013) Business Intelligence in Retail
12. de Coelho, V. (May-August 2013) Business Intelligence in Retail
13. Kallada, M. (September 2013 - date) Temporal Data Mining.
14. Jain, S. (May-December 2013) Monitoring Thyroid Cancer Patients.
    App Development for Halifax Regional Municipality Data.
15. Triff, M. (May 2013 - April 2014) Meta-clustering and mobile app development.
16. Kallada, M. (August 2013 - date) Classification and clustering of temporal image stream data.
17. Simmons, J. (October 2013 - date) App Development for Halifax Regional Municipality Data.
18. Jong, M. (October 2013 - date) App Development for Halifax Regional Municipality Data.
19. Paravia, R. (May 2013 - Sept 2013) Monitoring Thyroid Cancer Patients.
20. Rajaraman, D. (May 2013 - Sept 2013) Monitoring Thyroid Cancer Patients.
21. Bhayani, S. (May 2013 - August 2013) Monitoring Thyroid Cancer Patients.
22. Agarwal, S. (2012). (National Institute of Technology, Surat, India), Association and Correlation between Temporal Patterns.

23. Reddy, V. (2012). (Indian Institute of Technology, Bombay), Clustering and Classification of Temporal Patterns.
24. Lowry, E. (2007-08). Developing Lecture Transcriptions in Flash Format.
25. Blades, W. (2007-08), Evolutionary Logit Models.
26. Willie, V. (2006-07), Multispeaker Transcription.
27. Adams, C. (2006-07), Multispeaker Transcription.
28. Crosby, W. Summer 2006, Proximity list based information retrieval.
29. Hines, J. Summer 2006, Indexing and searching utility for liberated learning.
30. Jain, A. Summer 2003, Study of attrition of customers.
31. Hogg, A. Summer 2002, Fuzzy loyalty measures for supermarket customers..
32. Xu, J. Summer 2001, Missing value analysis in traffic engineering.
33. MacDonald, S. Summer 2001, Loyalty of supermarket customers.
34. West, C. Summer 2001, Loyalty of supermarket customers.
35. Mountford, P. Summer 2000, Time-series predictions using GAs designed Neural Networks.
36. Huang, X. Summer 2000, Study of clustering algorithms.
37. Davies, C. Summer 1999, Rough genetic computing.