

NOUMAN AZAM

Assistant Professor,

Department of Computer Science,

National University of Computer and Emerging Sciences, Pakistan

Education

- 2010 - 2014** **Ph.D. in Computer Science**
University of Regina, Canada.
Thesis: Investigating Decision Making with Game-theoretic Rough Sets
- 2005 - 2007** **Masters in Computer Software Engineering**
National University of Sciences and Technology, Pakistan.
Thesis: Comparative Study of Feature Space Reduction Techniques for Spam Detection
- 2001- 2005** **Bachelors in Computer Science**
National University of Computer and Emerging Sciences, Pakistan.

Research Experience

Research interests

Rough sets, decision making, conflict analysis

List of Publications

In Journals

- [1]. J. T. Yao, **N. Azam**, Web-based Medical Decision Support Systems for Three-way Medical Decision Making with Game-theoretic Rough Sets. *IEEE Transaction on Fuzzy Systems*. Vol. 23, No. 1, Pages 3-15, 2015. (**impact factor of 8.75**)
- [2]. **N. Azam**, J. T. Yao, Interpretation of Equilibria in Game-theoretic Rough Sets. *Information Sciences*. Vol. 295, Pages 586-599, 2015. (**impact factor of 4.03**)
- [3]. **N. Azam**, J. T. Yao, Analyzing Uncertainties in Rough Set Regions with Game-theoretic Rough Sets. *International Journal of Approximate Reasoning*, Vol. 55, No. 1, Pages 142-155, 2014. (**impact factor of 2.45**)
- [4]. **N. Azam**, J. T. Yao, Game-theoretic Rough Sets for Recommender Systems. *Knowledge-Based Systems*. Vol. 72, Pages 96-107, 2014. (**impact factor of 2.94**)
- [5]. **N. Azam**, J. T. Yao, Comparison of Term Frequency and Document Frequency based Feature Selection Metrics in Text Categorization. *Expert Systems with Applications*, Vol. 39, No. 5, Pages 4760-4768, 2012. (**impact factor of 2.24**)

Submitted Papers in Journals

- [6]. **N. Azam**, J. T. Yao, Y. Zhang, Evaluation Functions and Decision Conditions of Three-way Decisions with Game-theoretic Rough Sets. *European Journal of Operational Research* (second round review) (**impact factor of 2.358**)
- [7]. M. Nauman, **N. Azam**, J. T. Yao, A Three-way Decision Making Approach to Malware Analysis using Probabilistic Rough Sets. *Information Sciences* (under review) (**impact factor of 4.03**)

In Conference Proceedings:

- [8]. M. Nauman, **N. Azam**, J. T. Yao, A Three-way Decision Making Approach to Malware Analysis, *Proceedings of 10th International Conference on Rough Sets and Knowledge Technology (RSKT'15)*, Tainjin, China, Nov 20 – Nov 23, 2015, Lecture Notes in Computer Science 9436,

Pages 273-284.

- [9]. **N. Azam**, J. T. Yao, Application of Game-theoretic Rough Sets for Recommender Systems, Multi-Disciplinary International Workshop on Artificial Intelligence, Bangalore, India, Dec 8- Dec 10, 2014, Lecture Notes in Computer Science 8875, Pages 89-100.
- [10]. B. Majeed, **N. Azam**, J. T. Yao, Thresholds Determination for Probabilistic Rough Sets with Genetic Algorithms, *Proceedings of 9th International Conference on Rough Sets and Knowledge Technology (RSKT'14)*, Shanghai, China, Oct 24 - Oct 26, 2014, Lecture Notes in Computer Science 8818, Pages 693-704.
- [11]. J. T. Yao, **N. Azam**, Incorporating Game-theoretic Rough Sets in Web-based Medical Decision Support Systems, *Proceedings of 12th International Conference on Machine Learning and Applications (ICMLA'13)*, Miami, USA, Dec 4 – Dec 7, 2013, Pages 335-338.
- [12]. **N. Azam**, J. T. Yao, Formulating Game strategies in Game-theoretic Rough Sets, *Proceedings of 8th International Conference on Rough Sets and Knowledge Technology (RSKT'13)*, Halifax, Canada, Oct 11 - Oct 14, 2013, Lecture Notes in Computer Science 8171, Pages 145-153.
- [13]. **N. Azam**, J. T. Yao, On Semantic Issues in Game-theoretic Rough Sets, *Proceedings of IFSA-NAFIPS Joint conference*, Edmonton, Canada, Jun 24 - Jun 28, 2013, Pages 1303 - 1308.
- [14]. **N. Azam**. Formulating Three-Way Decision Making With Game-Theoretic Rough Sets. *Proceedings of 26th Canadian Conference on Electrical and Computer Engineering (CCECE'13)*, Regina, Canada, May 5-May 8, 2013, Pages 695-698.
- [15]. **N. Azam**, J. T. Yao, Multiple Criteria Decision Analysis with Game-theoretic Rough Sets, *Proceedings of 7th International Conference on Rough Sets and Knowledge Technology (RSKT'12)*, Chengdu, China, Aug 17 - Aug 20, 2012, Lecture Notes in Computer Science 7414, Pages 399-408.
- [16]. **N. Azam**, J. T. Yao, Classifying Attributes with Game-theoretic Rough Sets, *Proceedings of 4th International Conference on Intelligent Decision Technologies (IDT'12)*, Gifu, Japan, May 23 - May 25, 2012, Smart Innovations, Systems and Technologies Vol. 15, Pages 175-184.
- [17]. **N. Azam**, J. T. Yao. Incorporating Game Theory in Feature Selection for Text Categorization. *Proceedings of 13th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing (RSFDGrC'11)*, Moscow, Russia, June 27-30, 2011, Lecture Notes in Computer Science 6743, Pages 215-222.

In Book Chapter:

- [18]. **N. Azam**, J. T. Yao, Game-theoretic Rough Sets for Feature Selection, in A. Skowron & Z. Suraj (eds.), *Rough Sets and Intelligent Systems - Professor Zdzislaw Pawlak in Memoriam*, Intelligent Systems Reference Library, Vol. 44, Pages 61-78, 2013.

Thesis and Reports:

- [19]. **N. Azam**, Investigating Decision Making with Game-theoretic Rough Sets. *Ph.D Thesis* at Department of Computer Science, University of Regina, Canada, 2014.
- [20]. **N. Azam**, Comparative Study of Feature Space Reduction Techniques for Spam Detection. *Master's Thesis* at College of electrical and mechanical engineering, National University of Sciences and Technology, Pakistan, 2007.

Reviewer

Journals: Information Sciences, International Journal of Approximate Reasoning, International Journal of Information Management, Knowledge-Based Systems, IEEE Transactions on Fuzzy Systems.

PC Member of 2015 international Joint Conference On Rough Sets (IJCRS'15), Reviewer of numerous conferences.

Teaching Experience

Jan 2015 –Present **Assistant Professor at National University of Computer and Emerging Sciences, Pakistan.**

Courses	CS 313 Software Engineering	Spring 2016
	SS 303 Research Methodology	Spring 2016
	CS 205 Operating Systems	Winter 2015
	CS 475 Data Mining	Winter, Fall 2015
	CS 800 Rough Sets	Winter, Fall 2015

May 2010–Dec 2014 **University of Regina, Canada.**

Guest Lecturer

Graduate Course	Rough Sets and Application	Winter 2012 & Fall 2013
-----------------	----------------------------	-------------------------

Experience as an Instructor (teaching a full course)

Course	• CS 201: Introduction to Digital Systems	Winter 2011 & 2014
--------	---	--------------------

Experience as a Teaching Assistant

Courses	• CS 475: Advanced Topics in Database Systems	Fall 2014
	• CS 201: Introduction to Digital Systems	Fall 2013
	• CS 215: Web Oriented Programming	Summer 2013, Winter 2013
	• CS 110: Introduction to Programming	Fall 2012
	• CS 330: Introduction to Operating Systems	Fall 2012
	• CS 301: Digital Systems Architecture	Spring 2012
	• CS 372: Software Engineering Methodology	Spring 2011
	• CS 110: Introduction to Programming	Winter 2011
	• CS 201: Introduction to Digital Systems	Fall 2010
	• CS 375: Introduction to Database Systems	Fall 2010
	• CS 430: Operating Systems	Fall 2010

Aug 2007–Apr 2010 **Assistant Professor / Lecturer at Peshawar College of Engineering.**

(Affiliated College of University of Engineering and Technology, Peshawar)

Courses	• Digital Image Processing	Fall 2007, Winter 2008
	• Operating Systems	Winter 2008, Winter 2010
	• Data Communication	Fall 2008, Fall 2009
	• Computer Networks	Winter 2009, Winter 2010
	• Computer Organization & Architecture	Fall 2009
	• Software Engineering	Fall 2008

Sep 2009–Apr 2010 **Visiting Lecturer at National University of Computer and Emerging Sciences.**

Courses	• Operating Systems	Fall 2009
	• Professional Issues in Information Technology	Winter 2010

Awards

2014	Student Presenter at Shen-kuo Research Exchange Award, Jointly funded by University of Regina and North China Electric Power University, China	\$2,000
2010 to 2014	Scholarly Award, Department of Computer Science, University of Regina	\$7,000

2011 & 2014	John Spencer and Jack Spencer Middleton Scholarship, University of Regina	\$2,000
2013 & 2014	FGSR-Saskatchewan Innovation and Opportunity Scholarship, Government of Saskatchewan and University of Regina.	\$34,000
2013	Verna Martin Memorial Scholarship, University of Regina.	\$20,000
2010 & 2013	Graduate Studies Research Award, University of Regina.	\$14,000
2011 to 2013	Sampson J. Goodfellow Scholarship, University of Regina	\$12,000
2011 & 2012	FGSR Graduate Student Scholarly Award, University of Regina.	\$2,000
2011 to 2013	FGSR Dean's Scholarship, University of Regina.	\$42,000
2011	International Graduate Student Scholarship, University of Regina.	\$7,000
2010	Gold Medal for Completing Master's with Distinction, National University of Science and Technology, Pakistan	
2006 & 2007	Endowment Fund Scholarship for Masters, National University of Science and Technology, Pakistan.	Rs.150,000
1999 to 2006	Employee Children Merit Scholarship, Zarai Taraqiyati Bank limited, Pakistan.	

References

Dr. JingTao Yao (Ph.D. Thesis Supervisor)

Professor
Department of Computer Science,
University of Regina, Canada

Email: jtyao@cs.uregina.ca
Web: <http://www2.cs.uregina.ca/~jtyao/>
Phone: ++1-306-585-4071

Dr. Yiyu Yao (Ph.D. Thesis Examiner)

Professor
Department of Computer Science,
University of Regina, Canada

Email: yyao@cs.uregina.ca
Web: <http://www2.cs.uregina.ca/~yyao/>
Phone: ++1-306-585-5226

Additional Information

Google Scholar <http://scholar.google.ca/citations?user=50Yq4loAAAJ&hl=en>
Total citations 208 (as of May 2016)

DBLP <http://www.informatik.uni-trier.de/~ley/pers/hd/a/Azam:Nouman>