

# Academic Dossier

**Dr. Usman Qamar**

Tenured Associate Professor,  
Computer & Software Engineering Department,  
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## 1. Education

School of Computer Science, University of Manchester, UK  
2009 – 2011

**Post-Doc**, Data Sciences & Machine Learning in AI,  
School of Computer Science, University of Manchester.

School of Computer Science, University of Manchester, UK  
2005 – 2009

**PhD**, Data Engineering, School of Computer Science,  
University of Manchester.

School of Informatics, University of Manchester, UK  
2003 - 2005

**MPhil**, Feature Selection, School of Informatics,  
University of Manchester.

Department of Computation UMIST, UK  
2002 - 2003

**MSc**, Computer System Design, Department of  
Computation, UMIST.

College of Electrical and Mechanical Engineering,  
Rawalpindi, Pakistan  
1998-2001

**BE**, Computer System Engineering.

## 2. Professional Profile

Tenured Associate Professor,  
Computer & Software Engineering  
Department,  
College of Electrical & Mechanical  
Engineering,  
National University of Sciences &  
Technology (NUST), Pakistan  
2011- Present

- Associate Professor of Machine Learning
- Taught both MSc and BE courses in computer engineering programme.
- OBE based teaching
- Assist in curriculum and programme development in the area of Computer Science/Engineering, as well as a wider context within the University.
- Supervised MSc and PhD students

Visiting Research Fellow,  
School of Computer Science,  
University of Manchester, UK  
2017- Present

- Conversational AI applications using machine learning techniques for Multi-Party Dialogue Management, Natural Language Understanding, and Natural Language Generation
- Research focuses on machine learning, in particular to applications of machine learning towards AI-related tasks.

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Visiting Senior Lecturer,  
Department of Operations,  
Technology, Events and Hospitality  
Management, Manchester  
Metropolitan University, UK

2016- Present

- Significant involvement in knowledge creation and transfer in conjunction with various partner organisations, such as the NHS, Deloitte, The Manufacturing Institute.
- Intersection of machine learning and computational linguistics.
- Apply machine learning techniques, such as deep learning, to a range of problems relating to the data analysis.

Research Fellow,  
Centre of Decision Research,  
University of Leeds, UK

2016- Present

- Use of text analytics, dominance-based rough sets analysis, imbalanced classification and visual aids.
- Decision making with and without data, multi-criteria decision making techniques and their use in decision support systems
- Theory and applications of multi-criteria decision analysis wherein decision makers often struggle to optimize or satisfice multiple objectives where some of these objectives are often in conflict with each other.

Joint Principal Investigator,  
Digital Pakistan Lab  
National Centre for Data Analytics  
and Cloud Computing

2018– Present

- PKR 88.4 million project funded by Higher Education Commission, Pakistan & Planning Commission, Pakistan.
- The aim of the lab is to assist Pakistan's transformation to digitization by providing a national platform of data analytics and cloud computing to serve multiple sectors and domains.
- The Lab is developing solutions for various applications in industrial, health, and energy sectors of the country to demonstrate Lab's spectrum ranging from data analytics to high performance computing.
- We envision seeing this lab becoming a true National Centre of Excellence in data analytics and cloud computing.

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Director and Founder,  
Knowledge and Data Science  
Research Centre (KDRC),  
Computer Engineering Department,  
College of E&ME,  
NUST, Pakistan  
2012 – Present

- Established in 2012
- Developing novel methods and systems for information extraction and retrieval, natural language processing, the use of ontologies for document classification and extraction, data intensive computing, bioinformatics and business intelligence
- Our main areas of research are Big Data, Natural Language Processing, Health Sciences and Counter Terrorism

Post-Doc,  
School of Computer Science,  
University of Manchester, UK  
2009– 2011

- Worked on hybrid mechanisms for statistical disclosure (feature selection merged with outlier analysis) for Office of National Statistics (ONS), London, UK,
- Churn prediction for Vodafone UK
- Customer profile analysis for shopping with the University of Ghent, Belgium

Assistant Warden,  
Dalton-Ellis Hall,  
University of Manchester, UK  
2006-2010

- Worked as a part of the welfare support team for students;
- Developed sound communicative skills while dealing with representatives from different levels of administration.
- Provided guidance and expertise to the Pastoral team and Residents Association.

Teaching Assistant,  
School of Computer Science,  
University of Manchester, UK  
2003-2008

- Assisted academic staff in the delivery of high quality teaching to undergraduate/postgraduate students as well as preparing material including e-learning material for the module.
- Prepared and marked course work both off-line and on-line using WebCT/Blackboard.
- Held tutorial sessions with students.

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## 3. Research

I have over 15 years of experience in data engineering and decision sciences both in academia and industry having spent nearly 10 years in the UK. I have a Masters in Computer Systems Design from University of Manchester Institute of Science and Technology (UMIST), UK. My MPhil in Computer Systems was a joint degree between UMIST and University of Manchester which focused on feature selection in big data. In 2008/09 I was awarded PhD from University of Manchester, UK. My PhD specialization is in Data Engineering, Knowledge Discovery and Decision Science. My Post PhD work at University of Manchester, involved various research projects including hybrid mechanisms for statistical disclosure (feature selection merged with outlier analysis) for Office of National Statistics (ONS), London, UK, churn prediction for Vodafone UK and customer profile analysis for shopping with the University of Ghent, Belgium. I have research strengths across a wide spectrum of AI and Machine Learning (ML) techniques as well as Natural Language Processing (NLP). In ML, I have developed fundamental ML techniques such as reinforcement learning and deep learning and build applications of these techniques in linguistics, robotics and information retrieval. I am interested in reasoning applied to problems in science, engineering and computing. I have used granular computing to deal rationally with uncertainty and information in a number of domains including astronomy, biology, finance, image & signal processing and multi-agent systems. My research in knowledge representation develop techniques that allow us to capture knowledge about our world in a form that computers can process and reason about. In the multi-agent systems domain, I have developed techniques that will enable computers to autonomously collaborate on complex problems. I am also interested in knowledge representation, ontologies and ontology languages, modal and description logics, automated reasoning, implementation and optimisation of reasoning systems, and applications in areas such as e-Science.

### 3.1 Publications

- 38 Impact Factor Journal\* Publications.
  - 110 Conference & Chapter Publications
  - 3 Books
  - 2 Technical Reports
  - 112.747 Combined Impact factor\*
- \*The Clarivate Analytics Impact Factor

### 3.2 Citation Metrics

- H-index = 21
- i-10 index = 41
- Citations = 1579

### 3.3 Editorial Duties

- Editorial Board member, Applied Soft Computing  
(<https://www.journals.elsevier.com/applied-soft-computing>)

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- Editorial Board Member, Neural Computing and Applications (<https://www.springer.com/journal/521>)
  - Associate Editor, Computers in Biology and Medicine (<https://www.journals.elsevier.com/computers-in-biology-and-medicine>)
  - Associate Editor, Array (<https://www.journals.elsevier.com/array>)
  - Associate Member, Elsevier Advisory Panel.

### 3.4 Books

- Text book “Data Science: Concepts & Techniques with Applications” (to be published by Springer & Co in 2020)
- Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, 2019 by Sumair Raza & Usman Qamar, published by Springer & Co
- Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, First Edition, 2017 by Sumair Raza & Usman Qamar, published by Springer & Co

### 3.5 Supervision

- 5 PhD students successfully supervised & 4 PhD students under supervision
- 81 MS students successfully supervised & 8 MS students under supervision

### 3.6 Patent

- Application no: GB1700667.7 (applied with Intellectual Property Office, UK)

## 4. Awards

### International Awards

- British Council Fellowship 2018/19
- Charles Wallace Fellowship 2016/17
- Finalist of the British Council’s International Professional Achievement Award 2016/17
- Silver award in APICTA (Asia Pacific ICT Alliance Awards) 2013 in category of R&D
- PhD Research Fellowship, Engineering and Physical Sciences Research Council (EPSRC), UK

### National Awards

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- Best Book Award 2017/18 at 7th Outstanding Research awards by Higher Education Commission, Pakistan
  - Best Researcher of Pakistan 2015/16 at 6th Outstanding Research awards by Higher Education Commission, Pakistan
  - Two best research paper awards at 6th Outstanding Research awards by Higher Education Commission, Pakistan
  - Best overall NUST University Researcher Award 2016
  - Gold in Research & Development category by Pakistan Software Houses Association (P@SHA) ICT Awards 2017
  - Gold in Research & Development category by Pakistan Software Houses Association (P@SHA) ICT Awards 2013

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## Appendix-A: List of Publications

2019

[161] Ayesha Shahnaz, Usman Qamar, Ayesha Khalid, Using Blockchain for Electronic Health Records, IEEE Access, 2019, I.F: 4.081

[160] Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, by Summair Raza & Usman Qamar, Springer & Co, 2019. Hardcover, ISBN: 978-981-32-9165-2

[159] Sadia Majeed, Usman Qamar, Wasi Haider, Farhan Hassan Khan, Improving social network analysis to enhance the identification of influential nodes, 15th IEEE International Conference on Emerging Technologies (ICET'2019), Peshawar, Pakistan, 2019

[158] Usman Ali, Usman Qamar, Khawaja Sarmad Arif, Kanwal Wahab, A Knapsack Problem Based Distributed Algorithm for Local Level Management in Smart Grids, XIV Springer International Workshop on Artificial Life and Evolutionary Computation, Rende, Italy, 2019

[157] Summair Raza & Usman Qamar, Introduction to Feature Selection, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019

[156] Summair Raza & Usman Qamar, Background of RST, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019

[155] Summair Raza & Usman Qamar, Critical Analysis of Feature Selection Algorithms, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019

[154] Summair Raza & Usman Qamar, Advance Concepts in RST Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019

[153] Summair Raza & Usman Qamar, Unsupervised Feature Selection Using RST, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019

[152] Summair Raza & Usman Qamar, Rough Set-Based Feature Selection Techniques, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019



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[151] Summair Raza & Usman Qamar, Rough Set Theory, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019

[150] Summair Raza & Usman Qamar, Dominance-Based Rough Set Approach, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019

[149] Summair Raza & Usman Qamar, Fuzzy Rough Sets, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Second Edition, Springer & Co, 2019

[148] Sadia Majeed, Aftab Farooq, Usman Qamar, Muhammad Uzair, Social Network Analysis Visualization Tools: A comparative Review, IEEE Intelligent Systems Conference (IntelliSys), London, United Kingdom, 2019

[147] Muhammad Asad, Usman Qamar, Younas Khan, Saba Bashir, Blood Glucose Level Prediction Using Optimized Neural Network for Virtual Patients, IEEE Intelligent Systems Conference (IntelliSys), London, United Kingdom, 2019

[146] Aiman Qadeer, Usman Qamar, A Dynamic Ensemble Selection Framework using dynamic weighting approach, IEEE Intelligent Systems Conference (IntelliSys), London, United Kingdom, 2019

[145] Younas Khan, Usman Qamar, Muhammad Asad, Babar Zeb, Applying Feature Selection and Weight Optimization Techniques to Enhance Artificial Neural Network for Heart Disease Diagnosis, IEEE Intelligent Systems Conference (IntelliSys), London, United Kingdom, 2019

[144] Muhammad Asad, Usman Qamar, A review of Continuous blood glucose monitoring and prediction of blood glucose level for diabetes type 1 patient in different Prediction Horizons (PH) using Artificial Neural Network (ANN), Intelligent Systems Conference (IntelliSys) London, UK, 2019

[143] Anam Amjid, Usman Qamar, UAMSA: Unified Approach for Multilingual Sentiment Analysis Using GATE, 6th ACM Conference on the Engineering of Computer Based Systems, Bucharest, Romania, 2019

[142] Muhammad Summair Raza, Usman Qamar, A parallel approach to calculate lower and upper approximations in dominance based rough set theory, Applied Soft Computing, Elsevier, 2019, I.F: 4.831

[141] Andleeb Aslam, Usman Qamar, Opinion Mining Using Live Twitter Data, 22nd IEEE International Conference on Computational Science and Engineering (IEEE CSE 2019), New York, USA, 2019

[140] Reda Khan, Usman Qamar, Andleeb Aslam, Pakizah Saqib, Aleena Ahmad, Quality framework for ontologies evaluation based on structural characteristics, 22nd IEEE International Conference on Computational Science and Engineering (IEEE CSE 2019), New York, USA, 2019

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[139] Kanwal Wahab, Usman Qamar, Khawaja Sarmad Arif, Building a biomedical ontology for Chronic Liver Disease, IEEE International Conference on Computer, Information, and Telecommunication Systems (CITS-2019), Beijing, China, 2019

[138] Muhammad Latif, Usman Qamar, A Novel Ensemble Approach for Feature Selection to Improve and Simplify the Sentimental Analysis, Springer Computing Conference, London, United Kingdom, 2019

[137] Pakizah Fatima, Usman Qamar, Andleeb Aslam, Aleena Ahmad, Hybrid of Filters and Genetic Algorithm – Random Forests based Wrapper approach for Feature Selection and Prediction, Springer Computing Conference, London, United Kingdom, 2019

[136] Khawaja Sarmad Arif, Usman Qamar, Kanwal Wahab, Building a biomedical ontology for respiratory tract infection, 7th ACM International Conference on Computer and Communication Management (ICCCM-2019), Bangkok, Thailand, 2019

[135] Iqra Tahir, Usman Qamar, EEG signal classification using neural network trained with SO for Epilepsy Identification, 11th ACM International Conference on Machine Learning and Computing (ICMLC 2019), Zhuhai, China, 2019

[134] Asma Shaheen, Usman Qamar, OOCQM: Object Oriented Code Quality Meter, 20th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2019), Toyama, Japan

[133] Munazza Ansar, Usman Qamar, Raheela Bib, Asma Shaheen, Identification of Difficult English Words for Assisting Hearing Impaired Children in Learning Language, 17th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2019), Honolulu, Hawaii, 2019

[132] Anila Umar, Usman Qamar, Detection and Diagnosis of Psychological Disorders Through Decision Rule Set Formation, 17th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2019), Honolulu, Hawaii, 2019

[131] Raheela Bibi, Usman Qamar, Munazza Ansar, Asma Shaheen, Sentiment analysis for Urdu news Tweets using Decision tree, 17th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2019), Honolulu, Hawaii, 2019

[130] Sami Ul Haq, Usman Qamar, Ontology Based Test Case Generation for Black Box Testing, ACM 8th International Conference on Educational and Information Technology (ICEIT 2019), University of Cambridge, Cambridge, UK, 2019

[129] Usman Ali, Khawaja Sarmad Arif, Usman Qamar, A Hybrid Scheme for Feature Selection of High Dimensional Educational Data, IEEE International Conference on Communication Technologies 2019 (ComTech-2019), Rawalpindi, Pakistan 2019

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[128] Muhammad Asad, Usman Qamar, Younas Khan, Blood Glucose Level Prediction with minimal inputs Using Neural Network, 11th ACM International Conference on Machine Learning and Computing (ICMLC 2019), Zhuhai, China, 2019

[127] Younas Khan, Usman Qamar, Nazish Yousaf, Machine Learning Techniques for Heart Disease Datasets: A Survey, 11th ACM International Conference on Machine Learning and Computing (ICMLC 2019), Zhuhai, China, 2019

## 2018

[126] Sadia Majeed, Usman Qamar, Aftab Farooq, State of Art Techniques for Social Influence Analysis: A Systematic Literature Review, 16th IEEE International Conference on Frontiers of Information Technology (FIT'18), Islamabad, Pakistan, 2018

[125] Sidra Shafi, Usman Qamar, Web Services Classification using an Improved Text Mining Technique, 11th IEEE International Conference on Service Oriented Computing and Applications, Paris, France, 2018

[124] Maryum Hamdani, Usman Qamar, A comparison of Modern Localization Techniques in Wireless Sensor Networks (WSNs), Future Technologies Conference (FTC), Vancouver, BC, Canada, 2018

[123] Fateh ur Rehman Muhammad Abbas Muhammad Saad Rehman, Usman Qamar, Similarity-Based Missing Values Filling Algorithm, IEEE Thirteenth International Conference on Digital Information Management (ICDIM), Berlin, Germany, 2018

[122] Saadia Hafeez, Usman Qamar, Towards a biomedical ontology on breast cancer, Journal of Biomedical Informatics, Elsevier, 2018, I.F: 2.882

[121] Sundus Ayyaz, Usman Qamar, Raheel Nawaz, HCF-CRS: A Hybrid Content based Fuzzy Conformal Recommender System for providing Recommendations with Confidence, Plos One, 2018, I.F: 2.766

[120] Alia Fatima, Usman Qamar, Incremental Wrapper based Random Forest Gene Subset Selection for Tumor Discernment, Springer 28th International Conference on Database and Expert Systems Applications, Regensburg, Germany, 2018

[119] Muhammad Summair Raza, Usman Qamar, A heuristic based dependency calculation technique for rough set theory, Pattern Recognition, Elsevier, 2018, I.F: 4.588

[118] Maryum Hamdani, Usman Qamar, A comparison of Modern Localization Techniques in Wireless Sensor Networks (WSNs), Springer Future Technologies Conference, Vancouver, BC, Canada, 2018

[117] Iqra Muhammad, Usman Qamar, A systematic review of time series based spam identification techniques, Springer Future Technologies Conference, Vancouver, BC, Canada, 2018

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[116] Rabia Noureen, Usman Qamar, InstaSent: A Novel Framework for Sentiment Analysis based on Instagram Selfies, IEEE IntelliSys 2018, London, UK, 2018

[115] Iqra Muhammad, Usman Qamar, Farhan Hassan Khan, Temporal Spam Identification- A multifaceted approach to identifying review spam, IEEE IntelliSys 2018, London, UK, 2018

[114] Madeha Arif, Usman Qamar, Farhan Hassan Khan, Saba Bashir, A Survey of Customer Review Helpfulness Prediction Techniques, IEEE IntelliSys 2018, London, UK, 2018

[113] Farhan Hassan Khan, Usman Qamar, Saba Bashir, Enhanced Cross-Domain Sentiment Classification Utilizing a Multi-Source Transfer Learning Approach, Soft Computing, Springer, 2018, I.F: 2.617

[112] Aiman Nazir, Usman Qamar, Automated misspelling detection and correction in clinical free-text records, IEEE International Conference on Artificial Intelligence and Big Data (ICAIBD18), Chengdu, China, 2018

[111] Fateh ur Rehman, Bilal Maqbool, Muhammad Qasim Riaz, Usman Qamar, Scrum Software Maintenance Model: Efficient Software Maintenance in Agile Methodology, 21st IEEE Computer Society National Computer Conference (NCC2018)

[110] Sadaf Munir, Usman Qamar, Hina Aziz, Automated Misspelling Detection and Correction in Medical Records, IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE 2018), Penang, Malaysia, 2018

[109] Aiman Nazir, Asma Shaheen, Iqra Zafar, Usman Qamar, GGSE-Website Usability Evaluation Framework, IEEE Computing Conference 2018, London, UK, 2018

[108] Madeha Arif, Usman Qamar, A Framework for Feature Extraction and Ranking for Opinion Making from Online Reviews, IEEE Computing Conference 2018, London, UK, 2018

## 2017

[107] Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications by Summair Raza & Usman Qamar, Springer & Co, 2017. Hardcover ISBN 978-981-10-4964-4

[106] Summair Raza & Usman Qamar, Background of RST, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Springer & Co, 2017

[105] Summair Raza & Usman Qamar, Critical Analysis of Feature Selection Algorithms, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Springer & Co, 2017

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[104] Summair Raza & Usman Qamar, Introduction to Feature Selection, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Springer & Co, 2017

[103] Summair Raza & Usman Qamar, Advance Concepts in RST Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Springer & Co, 2017

[102] Summair Raza & Usman Qamar, Unsupervised Feature Selection Using RST, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Springer & Co, 2017

[101] Summair Raza & Usman Qamar, Rough Set-Based Feature Selection Techniques, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Springer & Co, 2017

[100] Summair Raza & Usman Qamar, Rough Set Theory, Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications, Springer & Co, 2017

[99] Hiba Khalid, Mazhar Hameed, Usman Qamar, Evolutionary Testing Using Particle Swarm Optimization in IOT Applications, Lecture Notes in Networks and Systems (2017), Publisher: Springer, ISBN: 978-3-319-56991-8

[98] Qadeem Khan, Usman Qamar, Wasi Haider, Saad Rehman, Implementation and Analysis of Novel Clustering Algorithm Without Initial Value Selection for Software Architectural Styles Data Set, 15th International Conference on Frontiers of Information Technology (FIT'17), Islamabad, Pakistan, 2017

[97] Mazhar Hameed, Hiba Khalid, Usman Qamar, Reinforced Experience Generator based on Query Nature and Data Bulking, IEEE Future Technologies Conference (FTC) 2017, Vancouver, Canada, 2017

[96] Sara Tanvir, Mamoona Safdar, Hanny Tufail, Usman Qamar, Merging Prototyping with Agile Software Development Methodology, International Conference on Engineering, Computing & Information Technology, Kuala Lumpur, Malaysia, 2017

[95] Muhammad Summair Raza, Usman Qamar, Feature selection using Rough Set-based direct dependency calculation by avoiding the positive region, International Journal of Approximate Reasoning, Elsevier, 2017, I.F: 2.841

[94] Shaista Sabir, Usman Qamar, Tanveer Ahmed, Mubashir zafar Ali, A preconception Gender assessment using Data Mining Techniques based on Implementation of Natural Laws & Favoring Factors, ACM International Conference on Internet of Things and Machine Learning (IML 2017), Liverpool, UK, 2017

[93] Sadaf Sahar, Usman Qamar, Sadaf Ayaz, Multi Layer Neural Network and Fuzzy Logic Based Software Quality Prediction, 19th International Conference on Software Engineering Ethics, Safe, Reliable and Quality Software, London, UK, 2017

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[92] Bureera Sabir, Nabila Parveen, Usman Qamar, Abdul Wahab Muzaffar Qureshi, Impact Analysis on Evolution Patterns of Service Oriented Systems, International Conference on Engineering, Computing & Information Technology, Kuala Lumpur, Malaysia, 2017

[91] Adnan Ullah, Usman Qamar, Farhan Hassan Khan, Dimensionality Reduction Approaches and Evolving Challenges in High Dimensional Data, ACM International Conference on Internet of Things and Machine Learning (IML 2017), Liverpool, UK, 2017

[90] Muhammad Summair Raza, Usman Qamar, A Parallel Rough Set based Dependency Calculation Method for Efficient Feature Selection, Applied Soft Computing, Elsevier, 2017, I.F: 3.907

[89] Summair Raza, Usman Qamar, Redefining Core Preliminary Concepts of Classic Rough Set Theory for Feature Selection, Engineering Applications of Artificial Intelligence, Elsevier, 2017, I.F: 2.980

[88] Qadeem Khan, Usman Qamar, Wasi Haider Butt, Saad Rehman, Dataset Designing of Software Architectures Styles for Analysis through Data Mining Clustering Algorithms, IEEE Intelligent Systems Conference (IntelliSys 2017), London, UK, 2017

[87] Amna Noreen, Usman Qamar, Semantic Analysis of Social Media and Associated Psychotic Behavior, 13th IEEE International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2017), Guilin, China, 2017

[86] Hiba Khalid, Usman Qamar, Mazhar Hameed, Multi-Perspective Ant Colony Optimization for mining and understanding the topology oriented Big Data, 25th World Congress on Engineering (WCE 2017), London, UK, 2017

[85] Hiba Khalid, Mazhar Hameed, Usman Qamar, Kizer Abbas, Optimizing Software Project Management Staffing and Work-force Deployment Processes using Swarm Intelligence, IEEE Computing Conference, London, UK, 2017

[84] Sundus Ayyaz, Usman Qamar, Improving Collaborative Filtering by Selecting an Effective User Neighborhood for Recommender Systems, 18th IEEE International Conference on Industrial Technology (ICIT), Toronto, Canada, 2017

[83] Aamna Iqtidar, Abdul Wahab Muzaffar, Usman Qamar, Saad Rehman, A Biomedical Ontology on Genetic Disease, ACM International Conference on Internet of Things, Data and Cloud Computing (ICC 2017), Cambridge, UK, 2017

## **2016**

[82] Sobh Zeb, Usman Qamar, Faiza Hussain, Sentiment Analysis, Web Technologies and Applications (2016), Publisher: Springer, ISBN: 978-3-319-45834-2

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[81] Saba Bashir, Usman Qamar, Farhan Hassan Khan, WebMAC: A Web based Clinical Expert System, Information Systems Frontiers, Springer, 2016, I.F: 3.232

[80] Farhan Hassan Khan, Usman Qamar, Saba Bashir, A Semi-Supervised Approach to Sentiment Analysis using Revised Sentiment Strength based on SentiWordNet, Knowledge and Information Systems, Springer, 2016, I.F: 4.247

[79] Farhan Hassan Khan, Usman Qamar, Saba Bashir, eSAP: A Decision Support Framework for Enhanced Sentiment Analysis and Polarity Classification, Information Sciences, Elsevier, 2016, I.F: 4.830

[78] Qadeem Khan, Usman Qamar, Wasi Haider Butt, Saad Rehman, Implementation and Evaluation of Optimized Algorithm for Software Architectures Analysis through Unsupervised Learning, 17th IEEE international Conference on Sciences and Techniques of Automatic control & computer engineering (STA2016), Sousse, Tunisia, 2016

[77] Muhammad Summair Raza, Usman Qamar, A Rough Set Based Feature Selection Approach using Random Feature Vectors, 14th IEEE International Conference on Frontiers of Information Technology (FIT'16), Islamabad, Pakistan, 2016

[76] Bushra Zafar, Usman Qamar, Michael Cochez, Using Distributional Semantics for Automatic Taxonomy Creation, 14th IEEE International Conference on Frontiers of Information Technology (FIT'16), Islamabad, Pakistan, 2016

[75] Bushra Zafar, Usman Qamar, Michael Cochez, A Domain-Independent Hybrid Approach for Automatic Taxonomy Induction, 17th IEEE International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT-16), Guangzhou, China, 2016

[74] Mazhar Hameed, Usman Qamar, Usman Akram, Business Intelligence: Self Adapting and prioritizing database algorithm for providing big data insight in domain knowledge and processing of volume based instructions based on scheduled and contextual shifting of data, IEEE Future Technologies Conference (FTC), San Francisco, United States, 2016

[73] Farhan Hassan Khan, Usman Qamar, Saba Bashir, Lexicon based Semantic Detection of Sentiments using Expected Likelihood Estimate Smoothed Odds Ratio, Artificial Intelligence Review, Springer, 2016, I.F: 3.814

[72] Asad Bukhari, Usman Qamar, Ume Ghazia, URWF: User Reputation based Weightage Framework for Twitter Micropost Classification, Information Systems and e-Business Management, Springer, 2016, IF: 2.720

[71] Farhan Hassan Khan, Usman Qamar, Saba Bashir, Senti-CS: Building a Lexical Resource for Sentiment Analysis using the Subjective Feature Selection and Normalized Chi-Square based Feature Weight Generation, Expert Systems, Wiley & Co, 2016, IF: 1.431

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[70] Hiba Khalid, Usman Qamar, Usman Akram, Imparting Data Knowledge in discrete data volumes using crowded agent approach for multi-perspective and visualized big data, IEEE Future Technologies Conference (FTC), San Francisco, United States, 2016

[69] Faiza Hussain, Sobh Zeb, Usman Qamar, A Novel Approach for Searching Linguistic Synonyms through Parts of Speech Tagging, IEEE/WIC/ACM International Conference on Web Intelligence (WI'16), At Omaha, Nebraska, USA, 2016

[68] Saadia Ismail, Majed Alshamari, Usman Qamar, Wasi Haider Butt, Hafiz Farooq Ahmad, HL7 FHIR Compliant Data Access Model for Maternal Health Information System, 6th annual IEEE International Conference on Bioinformatics and Bioengineering (BIBE 2016), Taichung, Taiwan, 2016

[67] Sobh Zeb, Usman Qamar, Faiza Hussain, Sentiment Analysis on User Reviews through Lexicon and Rule-based Approach, The 18th Asia Pacific Web Conference, At Suzhou, China, 2016

[66] Amna Rahman, Usman Qamar, A Bayesian Classifiers based Combination Model for Automatic Text Classification, 7th IEEE International Conference on Software Engineering and Service Science (ICSESS 2016), Beijing, China, 2016

[65] Hiba khalid, Mazhar Hameed, Usman Qamar, Evolutionary testing using particle swarm optimization in IOT applications, IEEE SAI Intelligent Systems Conference 2016 (IntelliSys 2016), London, UK, 2016

[64] Farhan Hassan Khan, Usman Qamar, Saba Bashir, SWIMS: Semi-Supervised Subjective Feature Weighting and Intelligent Model Selection for Sentiment Analysis, Knowledge-Based Systems, Elsevier, 2016, I.F: 4.521

[63] Faiza Hussain, Usman Qamar, Identification and Correction of Misspelled Drugs' Names in Electronic Medical Records (EMR), 18th International Conference on Enterprise Information Systems (ICEIS), Rome, Italy, 2016

[62] Sundus Ayyaz, Usman Qamar, Automatic Topic Spotting in Biomedical Literature of diseases using Fuzzy Logic, 22nd International Conference on Computer and Information Science and Technology, Ottawa, Canada, 2016

[61] Andleeb Shehnaz, Usman Qamar, Abdul Wahab Muzaffar, Building a core biomedical knowledge base, IEEE BigDataService 2016, Oxford, United Kingdom, 2016

[60] Muhammad Summair Raza, Usman Qamar, A hybrid feature selection approach based on heuristic and exhaustive algorithms using Rough set theory, ACM Conference on Internet of things and Cloud Computing (ICC 2016), Cambridge, United Kingdom, 2016



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[59] A.B.N. Alvi, Usman Qamar, Abdul Wahab Muzaffar, Wasi Haider Butt, A Novel Hybrid Classifiers based Model for mining in Neuro-imaging, ACM Conference on Internet of things and Cloud Computing (ICC 2016), Cambridge, United Kingdom, 2016

[58] Farhan Hassan Khan, Usman Qamar, Saba Bashir, Multi-Objective Model Selection (MOMS) based Semi-Supervised Framework for Sentiment Analysis, Cognitive Computation, Springer, 2016, I.F: 3.479

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## **2015**

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## 2014

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[14] Saba Bashir, Usman Qamar, Younus Javed: An Ensemble based Decision Support Framework for Intelligent Heart Disease Diagnosis. International Conference on Information Society (i-Society 2014), London,UK; 2014

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## **2013**

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[4] W.H. Butt, S.A. Khan, U. Qamar: Detecting covert dubious actors using cross domain associations. Innovative Computing Technology (INTECH), 2013 Third International Conference on; 2013

[3] Khan, S.A. Khan, U.U. Yasin, I. ul Haq, U. Qamar: Detection of glaucoma using retinal fundus images. Biomedical Engineering International Conference (BMEiCON), 2013 6th; 2013

## **2010**

[2] Usman Qamar, Technical Report, A FASTERway to record reduction and attribute selection for large Data, School of Computer Science, University of Manchester, 2010.

## **2009**

[1] Usman Qamar, Technical Report, Rough Set Tutorial, School of Computer Science, University of Manchester, 2009.

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## Appendix-B: List of Graduated Students

### PhD Students

#### 2019

##### 5) Sundus Ayaz

- Supervisor: Dr Usman Qamar
- Thesis title: HCF-CRS: A Hybrid Content based Fuzzy Conformal Recommender System for providing recommendations with confidence
- Publications: 2 Conference papers + 1 Impact factor journal publication

#### 2018

##### 4) Summair Raza

- Supervisor: Dr Usman Qamar
- Thesis title: An incremental dependency calculation technique for feature selection using rough sets
- Publications: 2 Conference papers + 5 Impact factor journal publications + 1 Book

#### 2017

##### 3) Abdul Wahab Muzaffar Qureshi

- 
- Co-supervisor: Dr Usman Qamar
  - Thesis title: A Relation Extraction Framework for Biomedical Text using Hybrid Feature Set
  - Publications: 1 Conference paper + 1 Impact factor journal publication

## 2016

### 2) Farhan Hassan Khan

- Supervisor: Dr Usman Qamar
- Thesis title: Semi-Supervised Feature Weighting & Intelligent Model Selection (SWIMS): A Novel Sentiment Analysis Approach
- Publications: 2 Conference papers + 10 Impact factor journal publications

### 1) Saba Bashir

- Supervisor: Dr Usman Qamar
- Thesis title: IntelliHealth: An intelligent medical decision support system using a novel multi-layer classifier ensemble framework
- Publications: 2 Conference papers + 7 Impact factor journal publications

## **Master Students**

## 2020

### 77) Munazza Ansar

- Supervisor: Dr Usman Qamar
- Thesis title: Identification of Difficult English Words for Assisting Hearing Impairment Children in Learning Language
- Publications: 1 (Conference publication)

### 76) Muhammad Usman

- Supervisor: Dr Usman Qamar
- Thesis title: Secure Electronic Health Records Storage and Sharing using Blockchain
- Publications: 1 (Conference publication)

### 75) Pakizah

- Supervisor: Dr Usman Qamar
- Thesis title: Hybridizing Multiple Filters and GA Wrapper for Feature Selection of Microarray Cancer Datasets
- Publications: 2 (Conference publications)

## 2019



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74) Ayesha Shahnaz

- Supervisor: Dr Usman Qamar
- Thesis title: Using Blockchain for Electronic Health Records
- Publications: 1 (Journal Paper)

73) Sadia Majeed

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Farhan Hassan Khan
- Thesis title: Improving Social Network Analysis to Enhance the Identification of Influential Nodes
- Publications: 4 (conference papers)

72) Rabia Noureen

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Farhan Hassan Khan
- Thesis title: Deep Learning To Improve Sentiment Analysis
- Publications: 2 (conference papers)

71) Iqra Tahir

- Supervisor: Dr Usman Qamar
- Thesis title: Classification of EEG signal by training neural network with Swarm Optimization for Identification of Epilepsy
- Publications: 1 (conference paper)

70) Younas khan

- Supervisor: Dr Usman Qamar
- Thesis title: Applying Feature Selection and Weight Optimization Techniques to Enhance Artificial Neural Network for Heart Disease Diagnosis
- Publications: 2 (conference papers)

69) Muhammad Asad

- Supervisor: Dr Usman Qamar
- Thesis title: Blood Glucose Level Prediction Using Optimized Neural Network
- Publications: 4 (conference papers)

2018

68) Fariha Tauseef

- Supervisor: Dr Usman Qamar
- Thesis title: Detection of Heart Disease Using Decision Tree
- Publications: 0

---

67) Faiza Hussain

- Supervisor: Dr Usman Qamar
- Thesis title: Identification And Correction Of Misspelled Drugs' Names In Electronic Medical Records (EMR)
- Publications: 3 (Conference paper)

66) Sidra Shafi

- Supervisor: Dr Usman Qamar
- Thesis title: Web Services Classification Using An Improved Text Mining Technique
- Publications: 0

65) Amna Noureen

- Supervisor: Dr Usman Qamar
- Thesis title: Semantic Analysis of Social Media and Associated Psychotic Behaviors
- Publications: 1 (Conference paper)

64) Alia Fatima

- Supervisor: Dr Usman Qamar
- Thesis title: Wrapper Based Feature Selection Of Streaming Data And Accelerating Hoeffding Tree
- Publications: 3 (Conference papers)

63) Aiman Khan Nazir

- Supervisor: Dr Usman Qamar
- Thesis title: Automated misspelling detection and correction in clinical free-text records
- Publications: 3 (Conference papers)

62) Shaista Sabir

- Supervisor: Dr Usman Qamar
- Thesis title: A preconception Gender assessment using Data Mining Techniques based on Implementation of Natural Laws & Favoring Factors
- Publications: 1 (Conference paper)

61) Iqra Muhammad

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Farhan Hassan Khan
- Thesis title: Temporal Spam Identification
- Publications: 1 (Conference paper)

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60) Madeha Arif

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Farhan Hassan Khan
- Thesis title: Predicting Helpfulness of Online Reviews
- Publications: 2 (Conference papers)

2017

59) Qadeem Khan

- Supervisor: Dr Usman Qamar
- Thesis title: An Optimized Data Clustering Algorithm for Analysis of Software Architectural Styles Data Set
- Publications: 3 (Conference papers)

58) M Salman

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Farhan Hassan Khan
- Thesis title: URL Based Phishing Detection Using A Hybrid Approach
- Publications: 0

57) Adnan Ullah

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Farhan Hassan Khan
- Thesis title: Multi-Filter Feature Selection (MFFS) Model for Gene Analysis in Microarray Dataset
- Publications: 1 (Conference paper)

56) Shumaila Anjum

- Supervisor: Dr Usman Qamar
- Thesis title: Improving Software Maintenance by Applying Enhanced Tree Kernel Based Approach on Software Clone Detection Framework
- Publications: 0

55) Maryam Jamil

- Supervisor: Dr Usman Qamar
- Thesis title: CRM strategies based on association rules and sequential patterns
- Publications: 0

2016

54) Gulshan Saleem

- Supervisor: Dr Usman Qamar
- Thesis title: Text Mining through Modified Label Induction Grouping Algorithm

- 
- Publications: 1 (Conference paper)

53) Sobh Zeb

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr. Farhan Raiz
- Thesis title: Sentiment Analysis On User Reviews Through Lexicon And Rule-based Approach
- Publications: 2 (Conference paper)

52) Fatima Ameen

- Supervisor: Dr Usman Qamar
- Thesis title: An Approach for Semantic Workflows in Electronic Health Records
- Publications: 1 (Conference paper)

51) Bushra Zafar

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr. Michael Cochez
- Thesis title: Using Distributional Semantics For Automatic Taxonomy Induction
- Publications: 2 (Conference paper)

50) Mazhar Hameed

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Usman Akram
- Thesis title: Business Intelligence: Self Adapting and prioritizing database algorithm based on contextual shifting of data
- Publications: 3 (Conference paper)

49) Hiba Khalid

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Usman Akram
- Thesis title: Imparting Data Knowledge in discrete data volumes using crowded agent approach for multi-perspective and visualized big data
- Publications: 3 (Conference paper)

48) Amna Rahman

- Supervisor: Dr Usman Qamar
- Thesis title: A Bayesian Classifiers Based Combination Model For Text Classification
- Publications: 1 (Conference paper)

47) Aamna Iqtidar

- Supervisor: Dr Usman Qamar Co-Supervisor: Mr Abdul Wahab Muzaffar Qureshi
- Thesis title: Building A Biomedical Ontology on Genetic Disease

- 
- Publications: 1 (Conference paper)

46) Saadia Ismail

- Supervisor: Dr Usman Qamar Co-Supervisor: Dr Wasi Haider Butt
- Thesis title: HL7 FHIR Compliant Data Access Model for Maternal Health Information System (MHIS)
- Publications: 1 (Conference paper)

45) Ateeq ur Rehman Khattak

- Supervisor: Dr Usman Qamar
- Thesis title: Guidelines for the development of Whitebox Testing Tools
- Publications: 0

44) Asim Abbas

- Supervisor: Dr Usman Qamar
- Thesis title: Test Suite Minimization and Prioritization
- Publications: 0

2015

43) Shahzada Zeeshan Waheed

- Supervisor: Dr Usman Qamar
- Thesis title: Data Flow Based Automated Integration Testing Framework for Object Oriented Programs Using Evolutionary Approach
- Publications: 2 (Conference papers)

42) Zarha Khan

- Supervisor: Dr Usman Qamar
- Thesis title: A Text Mining based Approach to Detect Spam Emails
- Publications: 1 (Conference paper)

41) Saira Seemab

- Supervisor: Dr Usman Qamar
- Thesis title: Mining Hospital Data for Predicting Patient Drop Off
- Publications: 1 (Conference paper)

40) Muhammad Arslan Idris

- 
- Supervisor: Dr Usman Qamar
  - Thesis title: Performance Analysis of Cloud Based Load Testing of Web Applications
  - Publications: 1 (Conference paper)

39) Samiullah Khan

- Supervisor: Dr Usman Qamar
- Thesis title: A Framework for Evaluation of Biomedical Ontologies on the basis of Structural Components
- Publications: 1 (Conference paper)

38) Muhammad Zubair Khan

- Supervisor: Dr Usman Qamar
- Thesis title: Towards Service Evaluation and Ranking Model for cloud Infrastructure Selection
- Publications: 1 (Conference paper)

37) Aisha Zafar Ahmad

- Supervisor: Dr Usman Qamar, Co-Supervisor: Dr Wasi Haider Butt
- Thesis title: Influence of Key Player Detection and Removal on Efficiency and Performance of Terrorist Networks using Social Network Analysis
- Publications: 1 (Conference paper)

36) Aqsa Bajwa

- Supervisor: Dr Usman Qamar, Co-Supervisor: Dr Wasi Haider Butt
- Thesis title: Framework for incorporating social networks with recommender systems
- Publications: 0

35) Anam Shahjahan

- Supervisor: Dr Usman Qamar, Co-Supervisor: Dr Wasi Haider Butt
- Thesis title: Impact Of Refactoring On Code Quality By Using Graph Theory
- Publications: 1 (Conference paper)

34) Waqas Ahmed

- Supervisor: Dr Usman Qamar
- Thesis title: Analyzing Different Validation and Verification Techniques for Safety Critical Software System
- Publications: 1 (Conference paper)

33) Shoaib Hassan

- Supervisor: Dr Usman Qamar

- 
- Thesis title: Purification of Requirement Engineering Model for Rapid Application Development
  - Publications: 2 (Conference papers)

32) Saadia Hafeez

- Supervisor: Dr Usman Qamar
- Thesis title: Building a Bio-medical Ontology on Breast Cancer
- Publications: 1 (Conference paper)

31) Bakhtawar Seerat

- Supervisor: Dr Usman Qamar
- Thesis title: Clinical Decision Making Using Association Rule Mining-A New Approach with Attribute Weights
- Publications: 1 (Conference paper)

30) Syed Hasnain Ali

- Supervisor: Dr Usman Qamar
- Thesis title: A Feature Reduction Framework based on Rough Set for Bio Medical Datasets
- Publications: 1 (Conference paper)

29) Fahim Ashraf Awan

- Supervisor: Dr Usman Qamar
- Thesis title: Roman Urdu Sentiment Analysis (RUSA) – A Lexicon Based Approach
- Publications: 1 (Conference paper)

28) Usman Humayun

- Supervisor: Dr Usman Qamar
- Thesis title: Social Network Analysis using Multilevel Clustering on Linkden
- Publications: 0

27) Munazza Ishtiaq

- Supervisor: Dr Usman Qamar
- Thesis title: Sentiment Analysis of Twitter Data Using Sentiment Influencers
- Publications: 1 (Conference paper)

26) Madiha Guftar

- Supervisor: Dr Usman Qamar
- Thesis title: A rule based expert system for syncope prediction

- 
- Publications: 2 (Conference papers)

25) Kashif Khan

- Supervisor: Dr Usman Qamar
- Thesis title: Improved Single-Label Text Categorization by Instance Filtration.
- Publications: 1 (Conference paper)

24) Muhammad Ashraf Khan Niazi

- Supervisor: Dr Usman Qamar, Co-Supervisor: Mr Abdul Wahab Muzaffar Qureshi
- Thesis title: Signature Automation of UMLS Concepts: An Un-Supervised Named Entity Recognition Framework for Classification of DNA and RNA in Biological Text
- Publications: 1 (Conference paper)

2014

23) Sobia Shafiq

- Supervisor: Dr Usman Qamar, Co-Supervisor: Dr Wasi Haider Butt
- Thesis title: Attack Type Prediction Using Hybrid Classifier
- Publications: 1 (Conference paper)

22) Fareeha Choudhry

- Supervisor: Dr Usman Qamar
- Thesis title: Rule Based Inference Engine to forecast the Prevalence of Congenital Malformations in live births
- Publications: 1 (Conference paper)

21) Faryal Nosheen

- Supervisor: Dr Usman Qamar
- Thesis title: Flexibility and Privacy Control By Cookie Management
- Publications: 1 (Conference paper)

20) Muhammad Latif

- Supervisor: Dr Usman Qamar, Co-Supervisor: Mr Abdul Wahab Muzaffar Qureshi
- Thesis title: Content-Specific Unigrams and Syntactic Phrases to Enhance SentiWordNet based Sentiment Classification
- Publications: 1 (Conference paper)

19) Aniqaz Azam



- 
- Supervisor: Dr Usman Qamar
  - Thesis title: Optic Disc Segmentation from Colored Retinal Images using Vessel Density
  - Publications: 1 (Conference paper)

18) Roohi Hussain

- Supervisor: Dr Usman Qamar
- Thesis title: An Approach to Detect Spam Emails by Using Majority Voting
- Publications: 1 (Conference paper)

17) Faryal Gohar

- Supervisor: Dr Usman Qamar, Co-Supervisor: Dr Wasi Haider Butt
- Thesis title: Terrorist Group Prediction Using Data Classification
- Publications: 1 (Conference paper)

16) Nabila Perveen

- Supervisor: Dr Usman Qamar
- Thesis title: Inference Engine for Classification of Expert Systems Using Keyword Extraction Technique
- Publications: 1 (Conference paper)

15) Bureera Sabir

- Supervisor: Dr Usman Qamar, Co-Supervisor: Mr Abdul Wahab Muzaffar Qureshi
- Thesis title: Ontology Development and Evaluation for Urinal Tract Infection
- Publications: 1 (Conference paper)

14) Asad Bukhari

- Supervisor: Dr Usman Qamar
- Thesis title: URWF: User Reputation based Weightage Framework for Twitter Micropost Classification
- Publications: 1 (Conference paper) + 1 (Impact factor journal publication)

13) Muhammad Usman

- Supervisor: Dr Usman Qamar
- Thesis title: Assessment for Enterprise Content Management Implementation
- Publications: 0

12) Iqra Basharat

- 
- Supervisor: Dr Usman Qamar
  - Thesis title: Framework using supervised learning techniques for classification of unstructured data of cardiac patients
  - Publications: 1 (Conference paper)

11) Mamuna Fatima

- Supervisor: Dr Usman Qamar
- Thesis title: Cardiac Data Mining: Extraction of Significant Patterns for Predicting Heart Conditions
- Publications: 1 (Conference paper)

10) Maryam Samad

- Supervisor: Dr Usman Qamar
- Thesis title: Framework for the Time Series analysis of prevalence of Tb in Punjab.
- Publications: 0

9) Fasial Karim

- Supervisor: Dr Usman Qamar
- Thesis title: Human Frontal Sinus Identification Based on SIFT and Pattern Recognition Techniques-A Hybrid Approach
- Publications: 0

2013

8) Aqdas Ikram

- Supervisor: Dr Usman Qamar
- Thesis title: Developing an expert system based on association rules and predicate logic for earthquake prediction
- Publications: 2 (Impact factor journal publication)

7) Andleeb Shahnaz

- Supervisor: Dr Usman Qamar
- Thesis title: Developing a multi-factor disease biomedical knowledge base using medical subject headings
- Publications: 1 (Conference paper)

6) Fauiza Khan

- Supervisor: Dr Usman Qamar
- Thesis title: Detecting covert dubious actors using cross domain associations
- Publications: 1 (Conference paper)

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5) Rozina Nisa

- Supervisor: Dr Usman Qamar
- Thesis title: A Text Mining based Approach for Web Service Classification
- Publications: 2 (Impact factor journal publications)

4) Bilal Kakli

- Supervisor: Dr Usman Qamar
- Thesis title: Impact of Politics, War on Terror and Natural Disasters on Pakistan Education. An Analysis of Primary Education in Pakistan
- Publications: 0

3) Hina Anwar

- Supervisor: Dr Usman Qamar
- Thesis title: Global Optimization Ensemble Model for Classification Methods
- Publications: 1 (Impact factor journal publication)

2012

2) Naizh Asad

- Supervisor: Dr Usman Qamar
- Thesis title: Association Rules Mining Using Transaction Hash Tables based Apriori (THT-Apriori)
- Publications: 2 (Conference papers)

1) Rabia Bashir

- Supervisor: Dr Usman Qamar
- Thesis title: Intelligent Web Services Classification using Machine Learning Algorithms
- Publications: 0