

DR. NAVEED ISHTIAQ CHAUDHARY

Assistant Professor

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DK 111, Street 1, Service Road, Dhoke Kashmirian, Rawalpindi
Pakistani 20-08-1988



EXPERIENCE

Assistant Professor

International Islamic University Islamabad

Since July 2018 Islamabad, Pakistan

- Advanced linear control systems
- Research methodology
- Advanced engineering mathematics

Lecturer

International Islamic University Islamabad

December 2021 - Present Islamabad, Pakistan

- Linear Algebra
- Differential Equations and Applications
- Probability and Random Variables
- Communication Systems
- Control Systems
- Signals and Systems
- Digital Signal Processing

Associate Engineer

International Islamic University Islamabad

May 2011 - March 2014 Islamabad, Pakistan

- Technical support for the production studio at the department of media and communication studies
- Operation and maintenance of the equipment at the production control room
- Teaching basic mathematics and statistics

STRENGTHS

Hard-working Coaching Enthusiastic MS Office MS Visio
Team Leader Pscad/MTDC Computer Software & Hardware
Simulink/Matlab Multisim & Pspice

VOLUNTEER EXPERIENCE

As a Article Peer Reviewer

Journals

4+ Years 2017-Ongoing

MY LIFE QUOTE

"Humans can have only that for which they make effort"

MOST PROUD OF

- Ph.D. Scholarship Award**
International Islamic University
- MS Scholarship Award**
International Islamic University
- BS Scholarship Award**
International Islamic University
- Research Productivity Award 2017-21**
Department of Electrical Engineering,
International Islamic University

EDUCATION

Ph.D. in Electronic Engineering

International Islamic University Islamabad, Pakistan

Sept 2013 - Dec 2018

M.Sc. in Electronic Engineering

International Islamic University Islamabad, Pakistan

Sept 2010 - Dec 2013

B.S. in Electronic Engineering

International Islamic University Islamabad, Pakistan

Sept 2006 - June 2010

GOOGLE SCHOLAR

Publications 70+ Citations 1500+
h-index 25 i10-index 45

RESEARCHGATE

Pubilications 70+ RG Score 540+

- Applied Mathematics and Computation
- Mathematics
- IEEE Transactions on Automation Science and Engineering
- IEEE Transactions on Big Data
- Signal Processing
- Applied Acoustics
- Energy Reports
- Nonlinear Dynamics
- Electronic Letters
- IEEE Signal Processing Letters
- Applied Soft Computing
- BMC Bioinformatics
- Measurement
- Soft Computing
- IET Radar, Sonar & Navigation

RESEARCH & DEVELOP. PROJECTS

- Smart Motorways Technology
- Design and Simulation of Distributed Generation System Based on Renewable Energy Resources.
- Autonomous car control based on embedded systems and image processing

RESEARCH INTERESTS

Major research areas

- Fractional calculus
- Nonlinear systems
- Parameter estimation
- Optimization heuristics
- Machine learning
- Computational intelligence
- Learning algorithms

CONFERENCE CHAIR/TECHNICAL PROGRAM COMMITTEE

- **Publication Chair**, 2021 IEEE International Conference on Electrical, Communication, and Computer Engineering (ICECCE), Pakistan.
- **Session Chair**, 2018 5th International Conference on Power Generation Systems and Renewable Energy Technologies (PSRET), Islamabad, Pakistan

LANGUAGES

English	● ● ● ● ●
Urdu	● ● ● ● ●
Punjabi	● ● ● ● ●

MEMBERSHIPS

PAK ENGINEERING COUNCIL

ELECTRO # 12963

📅 Life Time Membership

IEEE Membership

Professional Membership

📅 Membership

REFEREES

Dr. Zeshan Aslam Khan

@ International Islamic University Islamabad

✉ zeshan.aslam@iiu.edu.pk

Islamabad, Pakistan

Dr. Khalid Mehmood Cheema

@ Fatima Jinnah Women University

✉ khalid.mehmood@fjwu.edu.pk

Rawalpindi, Pakistan

INTERNATIONAL COLLABORATIONS

- 1 Prof. Carla M. A. Pinto, Department of Mathematics, Polytechnic of Porto, Porto, Portugal
- 2 Prof. Abdul Majid Wazwaz, Department of Mathematics, Saint Xavier University, Chicago, USA
- 3 Prof. Dumitru Baleanu, Department of Mathematics, Cankaya University, Turkey
- 4 Prof. J. A. Tenreiro Machado, Institute of Engineering, Polytechnic of Porto, Porto, Portugal
- 5 Dr. Nebojsa Dedovic, Department of Agricultural Engineering, University of Novi Sad, Novi Sad, Serbia
- 6 Prof. Peng Shi, Department of Electrical and Computer Engineering, The University of Adelaide, Adelaide, Australia
- 7 Prof. Yigang He, School of Electrical Engineering, Wuhan University, Wuhan, China
- 8 Dr. Ahmad H. Milyani, Department of Electrical Engineering, King Abdulaziz University, Saudi Arabia
- 9 Dr. Hani Alquhayz, Majmaah University, Al-Majmaah, Saudi Arabia
- 10 Prof. Mohammad sabati, Australian College of Kuwait, Kuwait
- 11 Prof. Wenwu Wang, University of Surrey, Guildford, Surrey, England.
- 12 Prof. ZhongFu Ye, University of Science and Technology of China, Hefei, China

PUBLICATIONS

Journal Articles

2022

- 1 Naveed Ishtiaq Chaudhary, Zeshan Aslam Khan, Adiqah Kausar Kiani, Muhammad Asif Zahoor Raja, Iqra Ishtiaq Chaudhary, Carla MA Pinto, "Design of auxiliary model based normalized fractional gradient algorithm for nonlinear output-error systems". *Chaos, Solutions and Fractals*, 2022. IF=9.922.
- 2 Yasir Muhammad, Nusrat Khan, Saeed Ehsan Awan, Muhammad Asif Zahoor Raja, Naveed Ishtiaq Chaudhary, Adiqah Kausar Kiani, Farman Ullah, Chi-Min Shu, "Fractional memetic computing paradigm for reactive power management involving wind-load chaos and uncertainties". *Chaos, Solutions and Fractals*, 2022. IF=9.922.
- 3 Faisal Altaf, Ching-Lung Chang, Naveed Ishtiaq Chaudhary, Khalid Mehmood Cheema, Muhammad Asif Zahoor Raja, Chi-Min Shu, Ahmad H. Milyani, "Novel Fractional Swarming with Key Term Separation for Input Nonlinear Control Autoregressive Systems". *Fractal and Fractional*, 2022. IF=3.577.
- 4 Naveed Ahmed Malik, Ching-Lung Chang, Naveed Ishtiaq Chaudhary, Khalid Mehmood Cheema, Muhammad Asif Zahoor Raja, Chi-Min Shu, Ahmad H. Milyani, "Novel Fractional Swarming with Key Term Separation for Input Nonlinear Control Autoregressive Systems". *Mathematics*, 2022. IF=2.592.
- 5 Muhammad Faizan Malik, Ching-Lung Chang, Muhammad Shamrooz Aslam, Naveed Ishtiaq Chaudhary, Muhammad Asif Zahoor Raja, "Fuzzy-Evolution Computing Paradigm for Fractional Hammerstein Control Autoregressive Systems". *International Journal of Fuzzy Systems*, 2022. IF=4.085.
- 6 Faisal Altaf, Ching-Lung Chang, Naveed Ishtiaq Chaudhary, Muhammad Asif Zahoor Raja, Khalid Mehmood Cheema, Chi-Min Shu, and Ahmad H. Milyani, "Adaptive Evolutionary Computation for Nonlinear Hammerstein Control Autoregressive Systems with Key Term Separation Principle". *Mathematics*, 2022. IF=2.592.
- 7 Zeshan Aslam Khan, Naveed Ishtiaq Chaudhary, Muhammad Asif Zahoor Raja, "Generalized fractional strategy for recommender systems with chaotic ratings behavior". *Chaos, Solutions and Fractals*, 2022. IF=9.922.
- 8 Naveed Ishtiaq Chaudhary, Muhammad Asif Zahoor Raja, Zeshan Aslam Khan, Ammara Mehmood, Syed Muslim Shah, "Design of Fractional Hierarchical Gradient Descent Algorithm for Parameter Estimation of Nonlinear Control Autoregressive Systems". *Chaos, Solutions and Fractals*, 2022. IF=9.922.
- 9 Khalid Mehmood Cheema, Naveed Ishtiaq Chaudhary, Muhammad Faizan Tahir, Kashif Mehmood, Muhammad Muddassir, Muhammad Kamran, Ahmad H. Milyani, Z.M. Salem Elbarbary, "Virtual Synchronous Generator: Modifications, Stability Assessment and Future Applications". *Energy Reports*, 2022. IF=4.937.
- 10 Tariq Mahmood, Nasir Ali, Naveed Ishtiaq Chaudhary, Khalid Mehmood Cheema, Ahmad H. Milyani, Muhammad Asif Zahoor Raja, "Novel Adaptive Bayesian Regularization Networks for Peristaltic Motion of a Third-Grade Fluid in a Planar Channel". *Mathematics*, 2022. IF=2.592.
- 11 Khizer Mehmood, Naveed Ishtiaq Chaudhary, Zeshan Aslam Khan, Muhammad Asif Zahoor Raja, Khalid Mehmood Cheema, and Ahmad H. Milyani, "Design of Aquila Optimization Heuristic for Identification of Control Autoregressive Systems". *Mathematics*, 2022. IF=2.592.
- 12 Ammara Mehmood, Muhammad Asif Zahoor Raja, Peng Shi, Naveed Ishtiaq Chaudhary, "Weighted differential evolution-based heuristic computing for identification of Hammerstein systems in electrically stimulated muscle modeling". *Soft Computing*, 2022. IF=3.732.

- 13 Wasim Ullah Khan, Muhammad Asif Zahoor Raja, Yigang He, **Naveed Ishtiaq Chaudhary**, "A novel application of integrated grasshopper optimization heuristics for attenuation of noise interferences". *Ain Shams Engineering Journal*, 2022. **IF=4.790**.

2021

- 14 Muhammad Asif Zahoor Raja, Mohammad Sabati, Nabeela Parveen, Muhammad Awais, Saeed Ehsan Awan, **Naveed Ishtiaq Chaudhary**, Muhammad Shoaib, Hani Alquhayz, "Integrated intelligent computing application for effectiveness of Au nanoparticles coated over MWCNTs with velocity slip in curved channel peristaltic flow". *Scientific reports*, 2021. **IF=4.379**.
- 15 Yasir Muhammad, Muhammad Asif Zahoor Raja, Muhammad Abid Ali Shah, Saeed Ehsan Awan, Farman Ullah, **Naveed Ishtiaq Chaudhary**, Khalid Mehmood Cheema, Ahmad H Milyani, Chi-Min Shu, "Optimal coordination of directional over-current relays using hybrid fractional computing with gravitational search strategy". *Energy Reports*, 2021. **IF=6.87**.
- 16 Akhtar Ali Khan, Syed Muslim Shah, Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, Yigang He, JAT Machado, "Fractional LMS and NLMS algorithms for line echo cancellation". *Arabian Journal for Science and Engineering*, 2021. **IF=2.334**.
- 17 Zeshan Aslam Khan, Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, Khizer Mehmood, Yigang He, "MISGD: Moving-Information-Based Stochastic Gradient Descent Paradigm for Personalized Fuzzy Recommender Systems". *International Journal of Fuzzy Systems*, 2021. **IF=4.673**.
- 18 Muhammad Asif Zahoor Raja, Zeeshan Khan, Samina Zuhra, **Naveed Ishtiaq Chaudhary**, Wasim Ullah Khan, Yigang He, Saeed Islam, Muhammad Shoaib, "Cattaneo-christov heat flux model of 3D hall current involving biconvection nanofluidic flow with Darcy-Forchheimer law effect: Backpropagation neural networks approach". *Case Studies in Thermal Engineering*, 2021. **IF=4.724**.
- 19 Babar Sattar Khan, Muhammad Asif Zahoor Raja, Affaq Qamar, **Naveed Ishtiaq Chaudhary**, "Design of moth flame optimization heuristics for integrated power plant system containing stochastic wind". *Applied Soft Computing*, 2021. **IF=6.725**.
- 20 **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, Yigang He, Zeshan Aslam Khan, JA Tenreiro Machado, "Design of multi innovation fractional LMS algorithm for parameter estimation of input nonlinear control autoregressive systems". *Applied Mathematical Modelling*, 2021. **IF=5.129**.
- 21 Ammara Mehmood, Peng Shi, Muhammad Asif Zahoor Raja, Aneela Zameer, **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, Yigang He, Zeshan Aslam Khan, JA Tenreiro Machado, "Design of backtracking search heuristics for parameter estimation of power signals". *Neural Computing and Applications*, 2021. **IF=5.606**.
- 22 **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, Zeshan Aslam Khan, Khalid Mehmood Cheema, Ahmad H. Milyani, "Hierarchical Quasi Fractional Gradient Descent Method for Parameter Estimation of Nonlinear ARX Systems using Key Term Separation Principle". *Mathematics*, 2021. **IF=2.258**.
- 23 Hasnat Bin Tariq, **Naveed Ishtiaq Chaudhary**, Zeshan Aslam Khan, Muhammad Asif Zahoor Raja, Khalid Mehmood Cheema, Ahmad H. Milyani, "Maximum likelihood based adaptive and intelligent computing for nonlinear system identification". *Mathematics*, 2021. **IF=2.258**.
- 24 Zaheer Masood, Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, Khalid Mehmood Cheema, Ahmad H. Milyani, "Fractional Dynamics of Stuxnet Virus Propagation in Industrial Control Systems". *Mathematics*, 2021. **IF=2.258**.
- 25 Sadiq Akbar, Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, Fawad Zaman, Hani Alquhayz, "Flower Pollination Heuristics for Parameter Estimation of Electromagnetic Plane Waves". *CMC-Computers Materials & Continua*, 2021. **IF=3.772**.
- 26 Wasim Ullah Khan, Yigang He, Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, Zeshan Aslam Khan, Syed Muslim Shah, "Flower Pollination Heuristics for Nonlinear Active Noise Control Systems". *CMC-Computers Materials & Continua*, 2021. **IF=3.772**.

2020

- 27 Yasir Muhammad, Rahimdad Khan, Muhammad Asif Zahoor Raja, Farman Ullah, **Naveed Ishtiaq Chaudhary**, Yigang He, "Solution of optimal reactive power dispatch with FACTS devices: a survey". *Energy Reports*, 2020. **IF=6.87**.
- 28 Muhammad Waleed Khan, Yasir Muhammad, Muhammad Asif Zahoor Raja, Farman Ullah, **Naveed Ishtiaq Chaudhary**, Yigang He, "A new fractional particle swarm optimization with entropy diversity based velocity for reactive power planning". *Entropy*, 2020. **IF=2.524**.
- 29 Hamid Ali Mirza, Laeeq Aslam, Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, Ijaz Mansoor Qureshi, Aqdas Naveed Malik, "A New Computing Paradigm for Off-Grid Direction of Arrival Estimation Using Compressive Sensing". *Wireless Communications and Mobile Computing*, 2020. **IF=2.336**.
- 30 Ammara Mehmood, Aneela Zameer, **Naveed Ishtiaq Chaudhary**, Sai Ho Ling, Muhammad Asif Zahoor Raja, "Design of meta-heuristic computing paradigms for Hammerstein identification systems in electrically stimulated muscle models". *Neural Computing and Applications*, 2020. **IF=5.606**.
- 31 Hamid Ali Mirza, Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, Ijaz Mansoor Qureshi, Aqdas Naveed Malik, "A robust multi sample compressive sensing technique for DOA estimation using sparse antenna array". *IEEE Access*, 2020.

IF=3.367.

- 32 **Naveed Ishtiaq Chaudhary**, Rizwan Latif, Muhammad Asif Zahoor Raja, JA Tenreiro Machado, "An innovative fractional order LMS algorithm for power signal parameter estimation". *Applied Mathematical Modelling*, 2020. IF=5.129.
- 33 Zeshan Aslam Khan, Syed Zubair, **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, Farrukh A Khan, Nebojsa Dedovic, "Design of normalized fractional SGD computing paradigm for recommender systems". *Neural Computing and Applications*, 2020. IF=5.606.
- 34 Yasir Muhammad, Rahimdad Khan, Muhammad Asif Zahoor Raja, Farman Ullah, **Naveed Ishtiaq Chaudhary**, Yigang He, "Design of fractional swarm intelligent computing with entropy evolution for optimal power flow problems". *IEEE Access*, 2020. IF=3.367.
- 35 **Naveed Ishtiaq Chaudhary**, Muhammad Saeed Aslam, Dumitru Baleanu, Muhammad Asif Zahoor Raja, "Design of sign fractional optimization paradigms for parameter estimation of nonlinear Hammerstein systems". *Neural Computing and Applications*, 2020. IF=5.606.
- 36 Ammara Mehmood, **Naveed Ishtiaq Chaudhary**, Aneela Zameer, Muhammad Asif Zahoor Raja, "Novel computing paradigms for parameter estimation in power signal models". *Neural Computing and Applications*, 2020. IF=5.606.
- 37 **Naveed Ishtiaq Chaudhary**, Mateen Ahmed, Nebojsa Dedovic, Muhammad Asif Zahoor Raja, "Momentum least mean square paradigm for the measurement of nonlinear CARAR system parameters". *Journal of Computational and Nonlinear Dynamics*, 2020. IF=2.085.
- 38 Muhammad Asif Zahoor Raja, Rizwan Akhtar, **Naveed Ishtiaq Chaudhary**, Wasim Ullah Khan, Zhu Zhiyu, Abid Jamil, Fawad Zaman, "Design of backtracking search optimization paradigm for joint amplitude-angle measurement of sources lying in fraunhofer zone". *Measurement*, 2020. IF=3.927.

2019

- 39 Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, Zaheer Ahmed, Ata Ur Rehman, Muhammad Saeed Aslam, "A novel application of kernel adaptive filtering algorithms for attenuation of noise interferences". *Neural Computing and Applications*, 2019. IF=5.606.
- 40 Ammara Mehmood, Aneela Zameer, **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, "Backtracking search heuristics for identification of electrical muscle stimulation models using Hammerstein structure". *Applied Soft Computing*, 2019. IF=6.725.
- 41 Ammara Mehmood, Aneela Zameer, Muhammad Asif Zahoor Raja, Rabia Bibi, **Naveed Ishtiaq Chaudhary**, Muhammad Saeed Aslam, "Nature-inspired heuristic paradigms for parameter estimation of control autoregressive moving average systems". *Neural Computing and Applications*, 2019. IF=5.606.
- 42 Zeshan Aslam Khan, Syed Zubair, Kashif Imran, Rehan Ahmad, Sharjeel Abid Butt, **Naveed Ishtiaq Chaudhary**, "A new users rating-trend based collaborative denoising auto-encoder for top-N recommender systems". *IEEE Access*, 2019. IF=3.367.
- 43 **Naveed Ishtiaq Chaudhary**, Muhammad Anwaar Manzar, Muhammad Asif Zahoor Raja, "Fractional Volterra LMS algorithm with application to Hammerstein control autoregressive model identification". *Neural Computing and Applications*, 2019. IF=5.606.
- 44 **Naveed Ishtiaq Chaudhary**, Syed Zubair, Muhammad Saeed Aslam, Muhammad Asif Zahoor Raja, JA Machado, "Design of momentum fractional LMS for Hammerstein nonlinear system identification with application to electrically stimulated muscle model". *European Physical Journal Plus*, 2019. IF=3.911.
- 45 Ammara Mehmood, **Naveed Ishtiaq Chaudhary**, Aneela Zameer, Muhammad Asif Zahoor Raja, "Backtracking search optimization heuristics for nonlinear Hammerstein controlled auto regressive auto regressive systems". *ISA transactions*, 2019. IF=5.468.
- 46 Ammara Mehmood, **Naveed Ishtiaq Chaudhary**, Aneela Zameer, Muhammad Asif Zahoor Raja, "Novel computing paradigms for parameter estimation in Hammerstein controlled auto regressive auto regressive moving average systems". *Applied Soft Computing*, 2019. IF=6.725.
- 47 Muhammad Asif Zahoor Raja, Muhammad Saeed Aslam, **Naveed Ishtiaq Chaudhary**, Muhammad Nawaz, Syed Muslim Shah, "Design of hybrid nature-inspired heuristics with application to active noise control systems". *Neural Computing and Applications*, 2019. IF=5.606.
- 48 Muhammad Asif Zahoor Raja, Rizwan Akhtar, **Naveed Ishtiaq Chaudhary**, Zhu Zhiyu, Qaiser Khan, Ata Ur Rehman, Fawad Zaman, "A new computing paradigm for the optimization of parameters in adaptive beamforming using fractional processing". *The European Physical Journal Plus*, 2019. IF=3.911.
- 49 Zeshan Aslam Khan, **Naveed Ishtiaq Chaudhary**, Syed Zubair, "Fractional stochastic gradient descent for recommender systems". *Electronic Markets*, 2019. IF=4.765.
- 50 Wasim Ullah Khan, Zhongfu Ye, Faisal Altaf, **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, "A novel application of fireworks heuristic paradigms for reliable treatment of nonlinear active noise control". *Applied Acoustics*, 2019. IF=2.639.
- 51 **Naveed Ishtiaq Chaudhary**, Syed Zubair, Muhammad Asif Zahoor Raja, Nebojsa Dedovic, "Normalized fractional adaptive

methods for nonlinear control autoregressive systems". *Applied Mathematical Modelling*, 2019. IF=5.129.

- 52 Muhammad Asif Zahoor Raja, Usman Ahmed, Aneela Zameer, Adiq Kausar Kiani, **Naveed Ishtiaq Chaudhary**, "Bio-inspired heuristics hybrid with sequential quadratic programming and interior-point methods for reliable treatment of economic load dispatch problem". *Neural Computing and Applications*, 2019. IF=5.606.

2018

- 53 Wasim Ullah Khan, ZhongFu Ye, **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, "Backtracking search integrated with sequential quadratic programming for nonlinear active noise control systems". *Applied Soft Computing*, 2018. IF=6.725.
- 54 Ammara Mehmood, Muhammad Saeed Aslam, **Naveed Ishtiaq Chaudhary**, Aneela Zameer, Muhammad Asif Zahoor Raja, "Parameter estimation for Hammerstein control autoregressive systems using differential evolution". *Signal, Image and Video Processing*, 2018. IF=2.157.
- 55 **Naveed Ishtiaq Chaudhary**, Syed Zubair, Muhammad Asif Zahoor Raja, "Design of momentum LMS adaptive strategy for parameter estimation of Hammerstein controlled autoregressive systems". *Neural Computing and Applications*, 2018. IF=5.606.
- 56 Muhammad Asif Zahoor Raja, Abbas Ali Shah, Ammara Mehmood, **Naveed Ishtiaq Chaudhary**, Muhammad Saeed Aslam, "Bio-inspired computational heuristics for parameter estimation of nonlinear Hammerstein controlled autoregressive system". *Neural Computing and Applications*, 2018. IF=5.606.
- 57 **Naveed Ishtiaq Chaudhary**, Mateen Ahmed, Zeeshan Aslam Khan, Syed Zubair, Muhammad Asif Zahoor Raja, Nebojsa Dedovic, "Design of normalized fractional adaptive algorithms for parameter estimation of control autoregressive autoregressive systems". *Applied Mathematical Modelling*, 2018. IF=5.129.
- 58 **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, Muhammad Saeed Aslam, Naseer Ahmed, "Novel generalization of Volterra LMS algorithm to fractional order with application to system identification". *Neural Computing and Applications*, 2018. IF=5.606.
- 59 Muhammad Asif Zahoor Raja, Muhammad Saeed Aslam, **Naveed Ishtiaq Chaudhary**, Wasim Ullah Khan, "Bio-inspired heuristics hybrid with interior-point method for active noise control systems without identification of secondary path". *Frontiers of Information Technology & Electronic Engineering*, 2018. IF=2.161.
- 60 Goran Lazovic, Vesna Sesum-Cavic, Slobodanka Mitrovic, Slobodan Radojevic, Nebojsa Dedovic, **Naveed Ishtiaq Chaudhary**, "Safety Times for Multistage Assembly System". *Mathematical Problems in Engineering*, 2018. IF=1.305.
- 61 Syed Zubair, **Naveed Ishtiaq Chaudhary**, Zeshan Aslam Khan, Wenwu Wang, "Momentum fractional LMS for power signal parameter estimation". *Signal Processing*, 2018. IF=4.662.

2017

- 62 **Naveed Ishtiaq Chaudhary**, Muhammad Saeed Aslam, Muhammad Asif Zahoor Raja, "Modified Volterra LMS algorithm to fractional order for identification of Hammerstein non-linear system". *IET Signal Processing*, 2017. IF=1.489.
- 63 **Naveed Ishtiaq Chaudhary**, Syed Zubair, Muhammad Asif Zahoor Raja, "A new computing approach for power signal modeling using fractional adaptive algorithms". *ISA transactions*, 2017. IF=5.468.
- 64 Muhammad Saeed Aslam, **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, "A sliding-window approximation-based fractional adaptive strategy for Hammerstein nonlinear ARMAX systems". *Nonlinear Dynamics*, 2017. IF=5.022.

2016

- 65 Muhammad Asif Zahoor Raja, Mohmmad Abdul Rehman Khan, Tariq Mahmood, Umair Farooq, **Naveed Ishtiaq Chaudhary**, "Design of bio-inspired computing technique for nanofluidics based on nonlinear Jeffery-Hamel flow equations". *Canadian Journal of Physics*, 2016. IF=1.24.
- 66 Muhammad Asif Zahoor Raja, Umair Farooq, **Naveed Ishtiaq Chaudhary**, Abdul Majid Wazwaz, "Stochastic numerical solver for nanofluidic problems containing multi-walled carbon nanotubes". *Applied Soft Computing*, 2016. IF=6.725.
- 67 Muhammad Asif Zahoor Raja, Junaid Ali Khan, **Naveed Ishtiaq Chaudhary**, Elyas Shivanian, "Reliable numerical treatment of nonlinear singular Flierl-Petviashvili equations for unbounded domain using ANN, GAs, and SQP". *Applied Soft Computing*, 2016. IF=6.725.

2015

- 68 **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, Anees Ur Rehman Khan, "Design of modified fractional adaptive strategies for Hammerstein nonlinear control autoregressive systems". *Nonlinear Dynamics*, 2015. IF=5.022.
- 69 **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, "Design of fractional adaptive strategy for input nonlinear Box-Jenkins systems". *Signal Processing*, 2015. IF=4.662.
- 70 Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, "Two-stage fractional least mean square identification algorithm

for parameter estimation of CARMA systems". *Signal Processing*, 2015. IF=4.662.

- 71 Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, "Identification of Hammerstein nonlinear ARMAX systems using nonlinear adaptive algorithms". *Nonlinear Dynamics*, 2015. IF=5.022.
-

2014

- 72 Muhammad Asif Zahoor Raja, **Naveed Ishtiaq Chaudhary**, "Adaptive strategies for parameter estimation of Box-Jenkins systems". *IET Signal Processing*, 2014. IF=1.489.
-

2013

- 73 **Naveed Ishtiaq Chaudhary**, Muhammad Asif Zahoor Raja, Junaid Ali Khan, Muhammad Saeed Aslam, "Identification of input nonlinear control autoregressive systems using fractional signal processing approach". *The Scientific World Journal*, 2013.
-

Conference Proceedings

- 74 Mateen Ahmed, **Naveed Ishtiaq Chaudhary**, Raza Samar, Muhammad Asif Zahoor Raja, "Design of momentum LMS algorithm for control autoregressive autoregressive systems". *15th International Bhurban Conference on Applied Sciences and Technology (IBCAST)-2018* Islamabad, Pakistan, 2018.