



## DR. GHOUS BAKHSH NAREJO

Professor & Chairperson

Department of Electronics Engineering  
NED University of Engg. & Tech

### EDUCATION

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#### **Doctorate of Philosophy in Electrical Engineering (PhD)**

Best Graduate Medalist  
Michigan Technological University, USA  
2007 – 2010

#### **Master of Engineering in Electronic Engineering (ME)** (Microelectronics)

NED University of Engineering & Technology, Karachi, Pakistan  
2007 – 2010

#### **Bachelor of Electronic Engineering (BE)**

Best Graduate Medalist  
Mehran University of Engineering & Technology, Pakistan  
1985 – 1990

### RESEARCH PROJECTS

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Total Ph.D. Projects: 07 Nos.  
PhD projects completed: 05 Nos.

#### COMPLETED PH.D. RESEARCH PROJECTS

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- ✓ Computational Algorithm for R.E. Microgrid
- ✓ Low current OTA Design and Layout
- ✓ Computational Algorithm for Liver Image Analysis
- ✓ Nanostructure Perovskite solar cell
- ✓ MWCNTs for H<sub>2</sub>O<sub>2</sub> sensing
- ✓ PhD projects in progress: 02 Nos.

### WORK EXPERIENCE

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#### **Professor & Chairperson**

Department of Electronic Engineering  
NED University of Engineering & Technology [May 2024- To date]

#### **Professor & Co-Chairperson**

Department of Electronic Engineering  
NED University of Engineering & Technology [May 2001- May 2024]

## RESEARCH PUBLICATION

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1. Ghous B Narejo, Dr. Warren F. Perger, First-principles computation of second-order elastic constants and equation of state for tetragonal BaTiO<sub>3</sub>, Chemical Physics Letters, Volume 493, Issues 4–6, Pages 263–268, 25 June 2010. (Impact factor: 1.860) JCR
2. Dr Ghous B Narejo, Dr. Warren F. Perger, Optimized crystalline structure and properties of the cubic and tetragonal BaFeO<sub>3</sub>, NED University Research Journal, 2012. (HEC Category X)
3. Dr Ghous B Narejo, M. Ahmed Dawood, Power Supply Based On Thermocouples with Cryogen Contact Cold Junction, NED University Journal of Research, 2013. (HEC Category X)
4. Dr. Ghous Bakhsh Narejo, Engr. Fawad Azeem, An Energy Policy Analysis and Proposed Remedial Actions to Reduce Energy Crises in Pakistan, Mehran University of Engineering and Technology Research Journal, ISSN: 0254-7821, 2016. (HEC Category X)
5. M. Haziq K.U. Azman, F. Azeem, G. B. Narejo, M. K. Joyo, M. H. Jaffery, M. I. B. A. Bakar, A. Tariq, An Analysis of Islanded Hybrid Microgrid Implementation Using Canals as Micro hydro Power Source with Solar PV for Rural Areas of Pakistan”, Sindh University Research Journal, ISSN: 1813-1743, 2016. (HEC Category X)
6. Ayesha Amir Siddiqi, Ghous Baksh Narejo, Shahnaila Zardari, Mashal Tariq, and Shehla Andleeb, Application of Image Processing Algorithms for Brain Tumor Analysis in 2D and 3D Leading to Tumor’s Positioning in Skull: Overview, Mehran University Research Journal of Engineering & Technology Research Journal, July, 2016. (HEC Category X)
7. Ayesha Amir Siddiqi, Ghous Baksh Narejo, Areeba Mehmood Khan, Early Skin Tumor Detection from Microscopic Images through Image Processing, Mehran University Research Journal of Engineering & Technology Research Journal, July, 2016. (HEC Category X)
8. Mashal Tariq, Ayesha A. Siddiqi, Ghous Bakhsh Narejo, Shehla Andleeb, A Cross Sectional Study of Tumors Using Bio-Medical Imaging Modalities, Current Medical Imaging Reviews, Vol 13, 2017. (Impact factor: 0.299) JCR
9. S Bano, GB Narejo, SMU Ali Shah, Power Efficient Fully Differential Bulk Driven OTA for Portable Biomedical Application, , Electronics 7 (3), MDPI, 14, March, 2018. (Impact factor: 2.110) JCR
10. Saleha Bano, Ghous Bakhsh Narejo, S. M. Usman Ali Shah, Low Voltage Low Power Single Ended Operational Transconductance Amplifier for Low Frequency Applications, Wireless Personal Communications, Springer April 2018. (Impact factor: 0.458) JCR
11. Fawad Azeem, Dr Ghous B Narejo, Energy Efficiency, Integration of renewable distributed generation with storage and demand side load management in rural islanded microgrid, Netherlands, Springer, November, 2018 (Impact factor: 1.634) JCR
12. Saleha Bano, Ghous Bakhsh, Dr Syed Muhammad Usman Ali, Nanopower sub threshold 4th order filter and its applications to ECG systems, International Journal of Electronics and Communications, JCR, impact factor 2.115
13. Saleha Bano, Dr Ghous Bakhsh, Dr Syed Usman Ali, 7.2 nW 68 Db DR 4th order self-compensated LPF for portable ECG Applications, Advanced Biomedical Engineering, May, 2019 SCI

14. Ayesha Siddiqui, Dr Ghous Bakhsh, Analysis of Abdominal Computed Tomography Images For Automatic Liver Cancer Diagnosis Using Image Processing Algorithm, Current Medical Imaging Reviews, (Impact factor:0.299) April 2019. JCR.
15. Ayesha Amir Siddiqi, Ghous Bakhsh Narejo, Mashal Tariq and Adnan Hashmi, Investigation Of Histogram Equalization Filter For CT Scan Image Enhancement, Biomedical Engineering: Applications, Basis and Communications, 9 August 2019. SCI
16. Fawad Azeem, Ghous Bakhsh, A Fuzzy Based Parametric Monitoring And Control Algorithm For Distinctive Loads To Enhance The Stability In Rural Islanded Microgrids, Facta Universitatis, Series: Electronics and Energetics, Accepted, 2019, SCI
17. Ghous B Narejo, Dr. Warren F. Perger First-principles computation of second-order elastic constants and equation of state for Rutile TiO<sub>2</sub>, Physics Research International Volume, 2011. SCOPUS
18. Ghous Bakhsh Narejo, Ayesha Amir Siddiqi and Adnan Hashmi, A Novel Image Processing Algorithm to Automatically Extract and Classify Liver Bearing Tumours Using Pattern Recognition and Fuzzy Transform, Biomedical Engineering: Applications, Basis and Communications, 30-12-2021, SCI
19. N.Pirzada, G. B. Narejo, S. U. A. Shah, T. A. K. Qasuria, A Novel Fabrication Approach for Improving the Efficiency of FAPbI<sub>3</sub> Based Perovskite Solar Cells, Journal: Journal of the Chemical Society of Pakistan, Impact factor: 0.698

## BOOKS AND BOOK CHAPTERS

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1. Microgrids: Design, Challenges, and Prospects, Editor: Ghous Bakhsh Narejo, Biswaranjan Acharya, Ranjit Singh Sarban Singh, Fatma Newagy, Copyright Year 2022
2. Chapter: Robotics and Machine Learning, Ghous Bakhsh Narejo, Book Privacy Vulnerabilities and Data Security Challenges in the IoT Edition 1st Edition, First Published 2020, Imprint CRC Press, Pages 16, eBook ISBN 9780429322969
3. Chapter: AI in Healthcare, Ghous Bakhsh Narejo, Book Privacy Vulnerabilities and Data Security Challenges in the IoT, Edition 1st Edition, First Published 2020, Imprint CRC Press, Pages 16, eBook ISBN 9780429322969

## CONFERENCE PAPERS

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1. Y. Rehman, Dr. Ghous B Narejo, S Zaidi, An experiment for testing efficiency of effective teaching model and comprehensive use of limited resources, Teaching, Assessment and Learning for Engineering (TALE), Volume 2011 (2011), Article ID 536183, 7 pages.
2. Dr Ghous B Narejo, S Bharucha, Real Time Finger Counting and Virtual Drawing Using Color Detection and Shape Recognition, 2013, Information & Communication Technologies (ICICT), Karachi, Page(s): 1 – 6, Print ISBN: 978-1-4799-2621-3, INSPEC Accession Number: 14080060.

3. Dr. Ghous Bux Narejo, Engr. Fawad Azeem, and Yasir Ammar, A survey of Control Strategies for Implementation of Optimized and Reliable operation of Microgrid in Islanded Mode”, IEEE, Power Generation and Renewable Energy Technologies Conference June 2015 Islamabad.
4. Dr. Ghous Bukhsh Narejo, Engr. Fawad Azeem, Performance Evaluation of Solar Flat Plate Collector Under Climatic Conditions of Islamabad Pakistan, 6th International Conference on Energy Research and Development Kuwait, 15-16 March 2016.
5. Saleha Bano, Ghous Bakhsh Narejo and S.M. Usman Ali Shah, ‘Single CDBA Based Bilinear Current
6. Mode Canonic Universal Filter’, IEEE Computing, Electronic and Electrical Engineering (ICE Cube), 2016, 11-12 April, Quetta, Pakistan.2016.7495250.
7. Ghous Narejo, Fawad Azeem , Waqas Azeem, Renewable energy-based power systems: models, indigenous analyses, ICIEECT, IEEE, Karachi, May 2017.
8. Raza Jafri and Ghous Narejo (2023) “A Novel Yagi-Uda Antenna Based Wireless Power Transmission (WPT) System Using Passive Reflectors”, 2nd International Conference on Emerging Trends in Electronics and Telecommunications Engineering (INTERACT-2023), 15th -16th March 2023, NED University of Engineering and Technology Karachi.
9. <https://www.mdpi.com/2673-4591/32/1/19/pdf>
10. Raza Jafri and Ghous Narejo “Performance Comparison of Three Antennas with Passive Reflecting Walls for Wireless Power Transmission” Journal of Independent Study and Research Computing, Volume 21, Issue 1 of the year 2023, SZABIST.