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PROF. DR. SYED MUHAMMAD USMAN ALI

PhD (Nano-electronics/Nanotechnology), M.Sc. (Electrical Engg.), BE (Electronic Engg.)
Professor & Chairman, Department of Electronic Engineering, NED University.
Head of Emerging Technologies Research Group
100^{+} Research Publications, Cumulative Impact factor=80 $^{+}$,
Total Citations: 1561, h-index: 21, i10-index: 27

PRESENT POSITION:

Presently working as Professor & Chairman in the Department of Electronic Engineering at NED University since September 2014

EDUCATION

- **PhD (Nano-electronics/Nanotechnology)** from **Linköping University Sweden** in January **2012** with an outstanding achievements of producing more than **50** publications (International Journals / IEEE Transactions & International Conferences), also wrote a book chapter published by **Springer** during 4 years of PhD studies.
- **M.Sc. (Electrical Engg)** from N.E.D University Karachi in the year **2000.**
- **B.E (Electronics)** from N.E.D University Karachi, in the year **1992-3** and secure **90.57 % marks**.

WORKING EXPERIENCE (More than 27 years)

TEACHING EXPERIENCE:

July 2001 to date

I joined as an **Assistant Professor** in the Department of Electronic Engineering at NED University of Engg & Tech. Karachi in July 2001. From July 2001, I am imparting electronic engineering education and practical exposure to young engineers in NED University. Since **June 2014** I am serving as **Professor** in the department of Electronic Engineering at NED University.

B.E. Programme

I have been teaching various courses in Under-Graduate Electronic Engineering Programme

- **Power Electronic**
- **Industrial Electronics**
- **Electronics**

M. Engg Programme

I have been teaching various courses in M. Engineering Programme from 2005 to 2008

- **Power Electronics**
- **Advanced Power Electronics**
- **Solid state DC drives**
- **Solid state AC drives**
- **Industrial Control systems**
- **Advanced Digital Electronics & Interfacing techniques**
- **Micro Fabrications**
- **Sensors & Systems**

ADMINISTRATIVE RESPONSIBILITIES AT DEPARTMENT OF ELECTRONIC ENGINEERING AT NED

- I am currently working as chairman, Department of Electronic Engineering at NED University of Engineering and Technology, fulfilling all the administrative and academic requirements.
- I have assigned the several administrative responsibilities and I have administrated all successfully, such as Incharge laboratories, Class Advisor of TE (EL), Incharge departmental maintenance and constructions, member of board of studies (BOS), Incharge of students all extracurricular activities, Incharge stock registers/inventory & impress account, also worked as M Engg. Program coordinator and also highly involved in the Accreditation process of the electronic department in year 2002.
- Besides teaching, I supervised several under graduate final year projects Post graduate ISPs and won several ICT grants for FYPs as well

INDUSTERIAL / ADMINISTRATIVE EXPERIENCE

Dec 1993 – July 2001

Assistant Manager (Electronics) Pakistan Steel

- Worked as an Incharge Automation and control Engineer for Finishing Mill Area in Hot Strip Mill (HSM) department. HSM is the Largest Unit of Pak-Steel as for as Electrical load is concerned i.e. 102 MW Approx.
- Responsibilities in the Mill were Technical cum administrative, which include plant operation, troubleshooting, PPM (Plant preventive maintenance) and routine

maintenance duties.

- During that period, I headed the Automation and control section of Thyristors Electro-drives section of Finishing Mill Area .This Section is most sensitive & important part of plant and consists of seven large DC drives ranging from 7.1 Mw to 5.6 Mw, used to reduce the thickness of hot sheet from 25mm to 2mm .This section also contain large hydraulic and lubrication facilities. I have ample technical exposure to the following Areas as well:
- Calibration of all Transducers/Sensors & Electronic Equipment used in Electro-drives. Trouble shooting of Relay Logic circuits.
- Got hands on experience on D.C drives (6-puilse and 12-pulse converters), troubleshooting in logic circuits and LT Control Panels.
-

CMMUNITY SERVICE

- **Member NED university Senate**
- **Member NED university syndicate**
- **Member NED UET Academic Council**
- **Member NED UET ASRB**
- **Member NED UET BOF (ECE)**
- **Chairman BOS (ELD)**
- **Member PEC Public Relation (PR) 2019**
- **Member PEC ACCREDIDATION TEAM**
- **Member NCRC (Electronic Engineering) HEC**
- **Member HEC QAA (PhD/MS/M Engg/Mphill Review Committee)**
- **Member Affiliation committee NEDUET**

PROFESSIONAL MEMBERSHIP

- Life membership of **PEC** having Registration Number **Electro/3322**
- Fellow Member of Pakistan Academy of Engineering **(PAE)**

HONORS & AWARD

Paper I- 1st Prize (Premium Awards for Journals)

The IET's dynamic and expanding journals publishing program includes 26 Research Journals, the internationally renowned *Electronics Letters and Micro & Nano Letters.* The portfolio covers the entire interdisciplinary field of electronic and electrical engineering and related subjects and all the journals are available online through the IET Digital Library, with most also available in print. An individual Premium Award is available for the best paper published within the previous two years in each journal. Nominations are received by the journal's editors and editorial boards,

with the winning paper decided by the individual journal's Editor-in-chief. Each award carries a value of £500.

***Paper- II 2nd Prize Sensors* Best Paper Award 2013**

Since 2011, *Sensors* has instituted an annual award to recognize outstanding papers that are related to sensing technologies and applications and meet the aims, scope and high standards of this journal. This year, nominations were made by the Section Editor-in-Chiefs of *Sensors* from among all the papers published in 2009. Reviews and full research articles were considered separately. We are pleased to announce that the following eight papers have won the *Sensors* Best Paper Award in 2013:

Research Supervision:

1. PhD students Supervised

Sr #	Name of the PhD candidate	Title of PhD Theses	Name of the university	Completion Year
01	**Engr. Ashraf Yahya Supervisor (PI)**	Parametric Evaluation, Modeling and optimization of Multilevel inverter	NED university of Engineering & Technology	**24th April 2019**
02	**Engr. Fawad Ahmed Co-Supervisor (Co-PI)**	Optimized Implementation of Efficient Control Algorithm for Islanded Microgrids	NED university of Engineering & Technology	**10th April 2019**
03	**Engr. Saleha Bano Co-Supervisor (Co-PI)**	Power efficient continuous Time Filters for Portable biomedical applications	NED UNIVERSITY OF Engineering & Technology	**28th October 2019**

2. *Master of Engineering*

Several students have been supervised for ISP/dissertation at M. Engg level from 2012 till to date

JOURNAL PUBLICATIONS:

1. Syed M. Usman Ali, O. Nur, M. Willander, B. Danielsson, fast and sensitive potentiometric glucose microsensor based on glucose oxidase coated ZnO nanowires grown on a thin silver wire, Sensors and Actuators B 145 (2010) 869-874. **(IF=4.097)**
2. Syed M. Usman Ali, Omer Nur, Magnus Willander, and Bengt Danielsson, Glucose detection with a commercial MOSFET using a ZnO nanowires extended gate, Nanotechnology, IEEE Transaction on, 8 (2009) 678-683**.(IF=1.825)**
3. M. H. Asif, Syed M. Usman Ali, O. Nur, M. Willander, Cecilia Brännmark, Peter Strålfors , Ulrika Englund , Fredrik Elinder and B. Danielsson, Functionalized ZnO nanorod based intracellular glucose sensor, Biosensors and Bioelectronics 25 (2010) 2205-2211. **(IF=6.409)**

4. Syed M. Usman Ali, Tasuif Aijazi, Kent Axelsson, Omer Nur, Magnus Willander, Wireless remote monitoring of glucose using functionalized ZnO nanowire arrays based sensor, Sensors 2011, 11, 8485-8496; doi:10.3390/s110908485. **(IF= 2.245)**
5. Syed M. Usman Ali, N.H. Alvi, Zafar Ibupoto, Omer Nur, Magnus Willander, Bengt Danielsson , Selective potentiometric determination of uric acid with uricase immobilized on ZnO nanowires, Sensors & Actuators: Chem. B 2 (2011) 241-247. **(IF=4.097)**
6. N. H. Alvi, Syed M. Usman Ali, S. Hussain, O. Nur, and M. Willander,Fabrication and comparative optical characterization of n-ZnO nanostructures (nanowalls, nanorods, nanoflowers and nanotubes)/p-GaN white light emitting diodes, Scripta Materialia 64 (2011) 697-700. **(IF=3.224)**
7. Alimujiang Fulati, Syed M. Usman Ali, Muhammad Riaz, Gul Amin, Omer Nur and Magnus Willander. Miniaturized pH sensors based on zinc oxide nanotubes/nanorods. Sensors 2009, 9(11), 8911-892. (Won 2013 Best Paper Award 2nd Prize announced by Sensor Journal) **(IF= 2.245)**
8. M. Willander, L. L. Yang, A. Wadeasa, S. U. Ali, M. H. Asif, Q. X. Zhao and O. Nur, Zinc oxide nanowires: controlled low temperature growth and some electrochemical and optical nano- devices, J. Mater. Chem., 2009, 19, 1006-1018**.(IF= 7.443)**
9. Alimujiang Fulati, Syed M. Usman Ali, Muhammad H. Asif, Naveed ul Hassan Alvi , Magnus Willander, Cecilia Brännmark, Peter Strålfors , Sara I. Börjesson, Fredrik Elinder, Bengt Danielsson, An intracellular glucose biosensor based on nanoflake ZnO, Sensors and Actuators, Chem. B 150 (2010) 673-680. **(IF=4.097)**
10. Muhammad H. Asif , Syed M. Usman Ali , Omer Nur , Magnus Willander, Ulrika H. Englund, Fredrik Elinder, Functionalized ZnO nanorod-based selective magnesium ion sensor for intracellular measurements, Biosensors and Bioelectronics 26 (2010) 1118-1123. **(IF=6.409)**
11. Syed M. Usman Ali, Muhammad H. Asif , Alimujiang Fulati , Omer Nur, Magnus Willander, Cecilia Brännmark, Peter Strålfors, Ulrika H. Englund, Fredrik Elinder and Bengt Danielsson, Intracellular K+ determination with a potentiometric microelectrode based on ZnO nanowires, IEEE Transaction on Nanotechnology, volume 10, Issue 4, pp. 913-919. **(IF=1.825)**
12. Th. S. Dhahi, U. Hashim, T. Nazwa, M. Kashif, Syed M. Usman Ali, Magnus Willander, pH measurement using micro gap structure, International journal of mechanical and materials engineering, 6(2) p.189-193.
13. Faraz Mahmood, Imran Mohsin, Syed M. Usman Ali , Abid Karim, Design of an ultra-wideband monopole antenna for handheld devices, Asian journal of engineering, sciences and technology Vol. 1 issue 1 (2011).
14. M. Kashif, Syed M. Usman Ali, M. E. Ali, H. I. Abdul gafour, U. Hashim M. Willander and Z. Hassan, Morphological, optical and Raman characterization of ZnO nanoflakes prepared via sol- gel method, Phys. Status Solidi A, 1-5 (2011) / DOI

10.1002/pssa.201127357. **(IF= 1.616)**

15. Syed M. Usman Ali, Zafar H. Ibupoto, Salah Salman, Omer Nur, Magnus Willander, Bengt. Danielsson, Selective determination of urea using urease immobilized on ZnO nanowires, Sensors & Actuators: B. Chem. 160 (2011) pp. 637-643**.(IF=4.097)**

16. Syed M. Usman Ali , M. Kashif , Zafar Hussain Ibupoto, M. Fakhar-e-Alam, U. Hashim, Magnus Willander, Functionalized ZnO nanotubes arrays as electrochemical sensor for the selective determination of glucose, Micro & Nano Letters, 2011, Vol. 6, issue. 8, pp. 609-613**.(IF= .853)**

17. Syed M. Usman Ali, Zafar Hussain Ibupoto, C. O. Chey, Omer Nur, Magnus Willander, Bengt Danielsson, Functionalized ZnO nanotube arrays for the selective determination of uric acid with immobilized uricase, Chemical Sensors 2011, 1: 19.

18. C. O. Chey, Syed M. Usman Ali, Z. Ibupoto, K. Khun, O. Nur, M. Willander, Potentiometric creatinine biosensor based on immobilization of creatinine deiminase (CD) on ZnO nanowires, J. Nanosci. Lett. 2012, 2: 24.

19. Z. H. Ibupoto, Syed M. Usman Ali, C.O. Chey, K. Kimleang, O. Nur, Magnus Willander, Functionalized ZnO nanorods coated with selective ionophore for the potentiometric determination of Zn+2 ions, JOURNAL OF APPLIED PHYSICS 2011(110) pp. 104702-104706.(**IF= 2.183)**

20. Z. H. Ibupoto, Syed M. Usman Ali, K. Kimleang, C.O. Chey, O. Nur, Magnus Willander, ZnO nanorods based enzymatic biosensor for the selective determination of Penicillin, Biosensors 2011, 1(4), 153-163.

21. K. Khun, Z. H. Ibupoto, Syed M. Usman Ali, C. O. Chey, O. Nur, M. Willander, The selective iron (Fe3+) ion sensor based on functionalized ZnO nanorods with selective ionophore, Journal of Electroanalysis 2011(22) pp. 1-8. **(IF= 2.138)**

22. Z. H. Ibupoto, Syed M. Usman Ali, K. Kimleang, M. Willander, L-Ascorbic acid biosensor based on immobilized enzyme on ZnO nanorods, J. Biosens Bioelectron, 2011 2(3) pp.607-614.

23. Z. H. Ibupoto, Syed M. Usman Ali, K, Khun and M. Willander, "Thallium (I) ion sensor based on functionalized ZnO nanorods", Journal of Nanotechnology, Vol. 2012, Artical ID 619062, pp. 1-6,

24. Z. H. Ibupoto, K. Khun, Syed M. Usman Ali, M. Willander, Electrochemical L-Lactic Acid Sensor Based on Immobilized ZnO Nanorods with Lactate Oxidasease, Sensors 2012, 12, 2456 2466.) **(IF= 2.245)**

25. Syed M. Usman Ali, Z. H. Ibupoto, M, Kashif, U. Hashim, Magnus Willander, A Potentiometric Indirect Uric Acid Sensor Based on ZnO Nanoflakes and Immobilized Uricase, Sensors 2012, 12, 2787- 2797.) **(IF= 2.245)**

26. M. Fakhar e Alam, S. M. U. Ali, Z. H. Ibupoto, M. Atif, and M. Willander, Phototoxic Effects of Zinc Oxide Nanowires (ZnO NWs) Complexed with 5 ALA in RD Cell Line1, Laser Physics, 2011, Vol. 21, No. 11, pp. 1–6**.(IF= 1.032**)

27. M. Fakhar-e-Alam, S. M. U. Ali, Z. H. Ibupoto, K. Kimleang, M. Atif, M. Kashif, F. K Loong, U.Hashim and M. Willander, Sensitivity of A-549 human lung cancer cells to nanoporous zinc oxide conjugated with Photofrin, Lasers Med Sci, 27(3) 2012 p-607-614**. (IF= 2.49)**

28. M. Kashif, Y. Al-Douri1, U. Hashim , M. E. Ali, S. M. U. Ali, Z. M. Willander, Characterization, analysis and properties studies of nanostructure ZnO using sol-gel method, Micro & Nano Letters, 2012, 7(2) pp. 163-167. **(IF= .853)**

29. Syed M. Usman Ali, M. Fakhar-e-Alam, Z.Wazir,M. Kashif, M. Atif , Magnus Willander and W. A.Syed, Cytotoxic Effects of Zinc Oxide Nanoflakes (ZNO NFS) in Human Muscle Carcinoma, International Journal of Medicine and Medical Sciences Vol. 2(1), 2012. pp. 053-058. (IF= 3.228)

30. M. Kashif, U. Hashim, Syed M. Usman Ali, Ala'eddin A. Saif , Magnus Willander, Md. EaqubAli , Structural and impedance spectroscopy study of Al-doped ZnO nanorods grown by sol-gel method, 2012, Vol. 29 Iss: 3p- 131-135 Microelectronics International(**IF=.658)**

31. M. Kashif, U. Hashim, M. E. Ali, Syed M. Usman Ali, M. Rusopd, Z. H. Ibupoto and Magnus Willander, "Effect of different seed solutions on the morphology and electro-optical properties of ZnO nanorods", Journal of Nanomaterial, Vol. 2012, Article ID 452407, pp. 1-6, doi: 10.1155/2012/452407**.(IF= 1.664)**

32. M. Kashif, Syed M. Usman Ali, M. E. Ali, U. Hashim , "Effect of UV on impedance spectroscopy of Sn doped ZnO Nanorods", Journal of Ovonic Research, Vol. 8, No. 3, 2012, p. 91 - 96. **(IF= .537)**

33. M .Kashif, M.E.Ali, Syed M. Usman Ali, U. Hashim, "Sol-gel Synthesis of Pd doped ZnO Nanorods for Room Temperature Hydrogen Sensing", Ceramics International 8(1) 2013 p- 1-9 **(Impact Factor 2.605).**

34. M. Kashif, M. E. Ali, Syed M. Usman Ali, U. Hashim, and S.B. Abd Hamid, " Impact of Hydrogen Concentrations on the Impedance Spectroscopic Behavior of Pd Sensitized ZnO Nanorods'' Nanoscale Research Letters, 39(6) 2013 p- 6461-6466 **(Impact Factor 2.779),**

35. Rizwan Asalm Butt, Syed M. Usman Ali , Shahid ur Rehman, Cost effective WSN Network Monitoring and Control using Modified SNMP, International Journal of Emerging Technology and advance Engineering (IJETAE) Vol. 3, Issue 3, pp. 735-740, 2013.

36. M. Kashif, U. Hashim, M. E. Ali, K. L. Foo and Syed M. Usman Ali, Morphological, Structural, and Electrical Characterization of Sol-Gel-Synthesized ZnO Nanorods, Journal of Nanomaterials Volume 2013, Article ID 478942, 7 pages. **(IF= 1.664)**

37. M. Kashif, M.E.Ali, Syed M. Usman Ali, K.L. Foo1, U. Hashim, Magnus Willander ' Sol-Gel Synthesis of ZnO Nanorods for Ultrasensitive Detection of Acetone', Advanced Science Letters, Volume 19, Number 12, December 2013 , pp. 3560-3563(4)

38. Ghani, Arfan; See, Chan H.; Usman Ali, Syed M.: 'Step forward to map fully parallel energy efficient cortical columns on field programmable gate arrays', IET Science, Measurement & Technology, 8(6) 2014 p- 432-440 (ISI impact factor: 0.592)

39. Syed M. Taha Saquib, Syed M. Usman Ali, Raza Jafri, Imran Amin, Sarmad Hameed, "Portable Handheld Control System for Multipurpose Automation", Pensee Journal, Vol 76, No. 4; Apr 2014, p- 41-47

40. Ashraf Yahya, S. M. Usman Ali, Nusrat Husain, Multilevel Inverter-a survey for MV and HV applications, International Journal of Scientific & Engineering Research, Volume 6, Issue 1, January-2015 p-1453-1460

41. Sana Aijaz, Irfan Ahmed, Muhammad I. Aslam, and Syed M. Usman Ali, "Spectrum Sensing in Cognitive Radios - Techniques, Issues and Challenges," International Journal of Information and Communication Technology Trends, 2(1) 2015 , p-1-4.

42. Immad Girach, Muhammad I. Aslam, Irfan Ahmed, Syed M. Usman Ali and Muhammad Khalid, "Photonic Band Gap Materials- Theory, Techniques and Application," Bahria University Journal of Information & Communication Technologies, 8(1) 2015, p-126-129.

43. Muhammad Usman, Irfan Ahmed, M. Imran Aslam, Shujaat Khan, and S.M Usman Ali, "SIT: A Lightweight Encryption Algorithm for Secure Internet of Things" *International Journal of Advanced Computer Science and Applications* (IJACSA), Vol. 8, no. 1, pp-402-411, 2017.

44. Tahniyat Aslam, Irfan Ahmed, Muhammad I. Aslam, Syed M. Usman Ali, Tahir Malik, "Direction of Arrival Estimation in the presence of Scatterer in noisy environment", Advanced Electromagnetics, Vol. 6, no. 3, pp.33-40, 2017.

45. Ashraf Yahya, Talha Waqar, Nusrat Husain, Dr Syed M Usman Ali, 'Hybrid Multilevel Topology Based High Power Quality Inverter' Journal Of Engineering Science and Technology Volume 2, Issue 9, pp 2428 -2431, ISSN: 3159-0040, September 2015, http://www.jmest.org/

46. Nusrat Husain, Ashraf Yahya, Syed M Usman Ali, Naqash Khan,' Wind Energy and HVDC Systems-Promising Technologies,' Technocrat, PNEC-NUST, Volume VII, pp 36-39, ISSN: 1728-5690, December 2017

47. **Saleha Bano**, Ghous Bakhsh Narejo, S.M. Usman Ali Shah,'Low Power Fully Differential Folded Cascode OTA with CMFB Circuit, Journal of Multidisciplinary Engineering Science and Technology (JMEST) ISSN: 2458-9403, 2017.

48. **Saleha Bano**, Ghous Bakhsh Narejo and S.M. Usman Ali, 'Power Efficient Fully Differential Bulk Driven OTA for Portable Biomedical Application', Electronics Journal, vol. 7, no. 3, pp. 1-19, 2018. ; DOI:10.3390/electronics7030041 **(JCR Indexed I.F: 2.11)**

49. **Saleha Bano**, Ghous Bakhsh Narejo and Syed Muhammad Usman Ali, 'Low Voltage Low Power Single Ended Operational Transconductance Amplifier for Low Frequency Applications', Wireless Personal Communications, pp. 1–10, April 2018. **(JCR Indexed IF**: **0.9)**

50. **Saleha Bano,** Ghous Bakhsh Narejo and Syed Muhammad Usman Ali, 'Nanopower Sub-threshold Biquadratic Cells and Its Application to Portable ECG System', International journal of Electronics and communications. (JCR Indexed **IF: 2.115**, https://doi.org/10.1016/j.aeue.2019.05.001)
51. **Saleha Bano**, Ghous Bakhsh Narejo and Syed Muhammad Usman Ali, 'Flipped voltage follower based fourth order filter and its application to portable for ECG acquisition system', Microelectronics Journal, (under review). (JCR Indexed IF: 1.34)
52. Raj Kumar1, Sirajuddin1, Amber Rehana Solangi1, Sidra Amin1, Ali Muhammad Mahar[1],Muhammad Ishaque Abro[3], Tayyaba Shaikh[1], Syed Muhammad Usman Ali Shah[4], AneelaTahira[5], and Zafar Hussain Ibupoto [2 5] "Synthesis of Sheet Like Morphology of NiO for Sensitive and Selective Determination of Urea"
53. Fawad Azeem, Dr. Ghous Bakhsh Narejo and Dr. Usman Ali Shah, Integration of Renewable Distributed Generation and Demand Side Load Management for Rural Islanded Microgrid, Energy Efficiency, Springer, 2018. https://doi.org/10.1007/s12053-018-9747-0 (ISI-Indexed, JCR), **IF.1.634**
54. Fawad Azeem, Dr. Ghous Bakhsh Narejo, Dr. Usman Ali Shah, A Fuzzy based parametric smart distinctive load controlling algorithm for residential loads to enhance the stability in Rural Islanded Microgrids , Elesvier International Journal of Electrical Power and Energy Systems 2018, (ISI-Indexed), **IF.3.6 (submitted & under review).**
55. Fawad Azeem, Dr. Ghous Bakhsh Narejo and Dr. Usman Ali Shah, Human Activities Tracking System for Load Profiling and Optimized Load Reduction in Rural Islanded Microgrids, Journal of Electrical Systems (JES), (ISI-Indexed) **(submitted & under review)**
56. Ashraf Yahya, **Syed M. Usman Ali**, Arfan Ghani " New level doubling architecture of cascaded Multilevel inverter ", IET Power Electr., https://doi.org/10.1049/iet-pel.2018.5512 **(JCR IF 2017:2.267)**
57. **Ashraf Yahya**, **Syed M. Usman Ali**, " A new Asymmetric Cascaded Multilevel Inverter with less number of variety ", European Power Electronics and Drives Jr, (under review) . **(JCR IF 2017:0.167)**
58. Ashraf Yahya**, Syed M. Usman Ali**, "New configurations of Asymmetric Multilevel Inverter with minimum variety", *Mehran University Research Journal of Engineering and Technology*, (under review)
59. *Saleha Bano * , Ghous Bakhsh Narejo,* ***S.M. Usman Ali, '*** *Flipped voltage follower based fourth order filter and its application to portable ECG acquisition system ' Integration, the VLSI Journal, https://doi.org/10.1016/j.vlsi.2019.12.003*

Conference Publications

1. **Kashif**, Syed M. Usman Ali, K. L. Foo, U. Hashim, Magnus Willander, ZnO nanoporous structure growth, optical and structural characterization by aqueous solution route, Enabling science and nanotechnology: 2010 International conference on enabling science and nanotechnology Escinano 2010. AIP Conference proceedings, volume 1341, pp. 92-95 (2011).
2. **Muhammad H. Asif** , Syed M. Usman Ali , Omer Nur, Magnus Willander , Ulrika H. Englund, Fredrik Elinder, Functionalized ZnO nanorod-based selective magnesium ion sensor for intracellular measurements, Biosensor world congress 2010, Glasgow UK, 26-28 May.
3. **Syed M. Usman Ali** , U. Hashim, Zafar Ibupoto, M, Kashif, M. Fakhar-e-Alam, Magnus Willander, ZnO nanoporous arrays based biosensor for highly sensitive and selective determination of uric acid using immobilized uricase, INSC 2011 4th to 5th July, 2011 Seri Kembangan Selangor, Malaysia.
4. **M, Kashif**, U. Hashim, Syed M. Usman Ali , Magnus Willander, Effect of Sn doping on crystal structure and optical properties of ZnO thin films, INMIC 2011, Karachi Pakistan Accepted.
5. **M. Kashif**, Syed M. Usman Ali, U. Hashim, Magnus Willander, Fabrication of n-ZnO-NPs/p Si heterojunction and its electro-optical characterization, INSC 2011 4th to 5th July, 2011, Seri Kembangan Selangor, Malaysia.
6. **M. Kashif**, Syed M. Usman Ali, U. Hashim, Magnus Willander, Structural and electrical study Of ZnO: Al nanorods, IPEC 2011, international Conference in Malaysia.
7. **Syed M. Usman Ali**, M. Kashif, Faraz Mahmood, Aamir H. Khan, Uda Hashim, Magnus Willander, SMS based remote monitoring of glucose using ZnO nanotubes based nanosensor, 22-23 October, IPEC 2011, international Conference in Malaysia.
8. **Faraz Mahmood**, Syed M. Usman Ali, M. Kashif, U. Hashim, Magnus Karlsson and Magnus Willander, Design of a Broadband Monopole Antenna for Handheld Applications, 22-23 October, IPEC 2011, international Conference in Malaysia.
9. **Syed M. Usman Ali,** C. O .Chey, Z. H. Ibupoto, M. Kashif, U. Hashim, Magnus Willander, Selective determination of cholesterol using functionalized ZnO nanotubes based sensor, CLV-02, Vinh city, 11-15 October 2011, Cambodia.
10. **K.L. Foo**, M. Kashif, U. Hashim, Syed M. Usman Ali, M. Willander, Growth of ZnO thin film on silicon substrate for optical application by using sol–gel spin coating method, ICOBE 2012 International Conference, Malaysia.
11. **Faraz Mahmood**, Syed M Usman Ali, C. O. Chey, H. Ing, Magnus Willander, Design of a broadband monopole antenna for mobile handsets, CLV-02, Vinh city, 11-15 October 2011, Cambodia.
12. **Faraz Mahmood**, Syed M Usman Ali, Mahmood Alam and Magnus Willander, Design of WLAN patch and UWB monopole antenna, IMTIC ’12 (international multi-topic

conference), 28-30 March 2012, Jamshoro, Sindh, Pakistan

13. **Syed M. Usman Ali**, C. O. Chey, Z. H. Ibupoto, O. Nur, M. Willander, Fabrication and characterization of hetro-junction light emitting diode based on n-ZnO nanoporous structure grown on p-GaN, CLV-02, Vinh city, 11-15 October 2011, Cambodia.
14. **C. O. Chey,** Syed M. Usman Ali, Z. H. Ibupoto, C. Sann, Kimleang Khun, K. Meak, O. Nur, M.Willander, Fabrication and characterization of light emitting diodes based on n-ZnO nanotubes grown by a low temperature aqueous chemical method on p-GaN, CLV-02, Vinh City, 11-15 October 2011, Cambodia.
15. **Syed M. Usman Ali**, M. Kashif, Z. H Ibupoto, C. O. Chey, U. Hashim, Magnus Willander, Sensing and optical characteristics of ZnO nanotubes fabricated through two step aqueous chemical route, IPEC 2011, International conference in Malaysia.
16. **M. Kashif**, Syed M. Usman Ali, Z .H Ibupoto, Mojtaba Nasr-Esfahani, U. Hashim, Magnus Willander, Growth of ZnO nanorods and effect of seed layer on interdigitated electrode (IDE) impedance, 7 to 9 Feb 2012, Nanotech 2012, International conference in Iran.
17. **Syed M. Usman Ali**, Z. H. Ibupoto, M. Kashif, Mojtaba Nasr-Esfahani, U. Hashim, M. Willander, Synthesis and electro-optical characterization of n-ZnO nanoflakes/p-GaN heterojunction light emitting diode, 7 to 9 Feb 2012, Nanotech 2012, International conference in Iran.
18. **Syed M. Usman Ali**, M. Kashif, Z. H Ibupoto, Mojtaba Nasr-Esfahani, U. Hashim. Magnus Willander, Optical and electrochemical sensing characterization of ZnO nanoflakes, 7 to 9 Feb 2012, Nanotech 2012, International conference in Iran.
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BOOK CHAPTER

I have written a book chapter with my PhD supervisor for a book with title Portable chemical sensors, Weapons Against Bioterrorism" published by springer in 2012. The Title of the book chapter is "**Zinc Oxide Nanostructures Based Bio- and Chemical Extra- and Intracellular Sensors**", Magnus Willander, Omer Nur and Syed M. Usman Ali

Weblink: http://www.springerlink.com/content/x17717m285343377/

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Reading engineering books, Scientific Journals, Newspapers Listening Music, outdoor re- creation and playing computing games.

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Will be provided if required