Electrical Engineering Program
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Mohammed Abdul Majid

OCCUPATION SUMMARY

- 15 years of Research, Teaching and Academic service experience.
- Published research work in peer reviewed journals and conferences.
- Extensive hands on experience with clean-room processing tools and fabrication of electronic/optoelectronic/ photovoltaic devices (8 years).
- Listed on the training matrix (Nanofabrication of Photonic devices) of UK EPSRC National Centre for III/V Technologies for 4 years (2008-2012).
- Experience writing project grants and attracting independent funding.
- Experience advising undergraduate, graduate and high school students.
- Worked as team leader/member in projects for developing simulation based e-learning courses/products.

EDUCATION

Ph.D. Electronic and Electrical Engineering, University of Sheffield, UK **Nov.2011**

Thesis: "GaAs-based quantum dot emitters for telecom and broadband applications"

M.Sc. Electrical Engineering, King Fahd Univ. of Pet. & Min.(KFUPM), Saudi Arabia **Jan. 2002**

Thesis: "Analysis of multi-layer ARROW (Anti-resonant reflecting optical wave guide) planar wave-guide for evanescent field enhancement in low-Index media"

B.Sc. Electronics and Communication Engineering, Osmania University, India **May 1999**

Senior Project: "Transmission of audio signals over optical fibers using digital and analog modulation techniques"

WORK EXPERIENCES

Assistant Professor, Electrical Engineering Department, Effat University **08/2015-now**

Postdoctoral Research Fellow, Electrical Engineering Program, King Abdullah University of Science and Technology (KAUST), Saudi Arabia **08/2012-08/15**

EPSRC Prize Postdoctoral Research Fellow, Electronic and Electrical Engineering (EEE) Dept., University of Sheffield (UoS), UK **10/2011-07/2012**

Graduate Teaching Assistant, EEE Dept., UoS **09/2008-08/2011**

Lecturer, Electrical Engineering (EE) Dept.,King Fahd University of Petroleum and minerals (KFUPM), Saudi Arabia **01/2002-06/2008**

Graduate Teaching Assistant, EE Dept., KFUPM **01/2000-01/2002**

Teaching assistant for four semesters during M.Sc. program

INDUSTRIAL EXPERIENCE

Trainee Engineer, Fibre Optics and Imaging Systems Laboratory, Electronic Corporation of India. **07/1999-12/1999**

RESEARCH INTERESTS

My research interests is in the modelling, fabrication and characterization of III/V based optoelectronic devices for solid state lighting, telecommunications, biomedical imaging and sensing of hazardous gases, especially in the oil and gas industries/exploration. Other areas of research include structural (SEM, TEM, STEM, HRTEM) and optical characterization (XPS, XRD, Raman, Photoluminescence etc) of nanomembrane/nanomaterial /organic polymers for water desalination, photovoltaic and oil /gas exploration.

FUNDED PROJECTS

- Part of team working on KACST (King Abdulaziz City for Science and technology) funded 50 million Saudi Riyal "Technology Innovation Centre" project for Gallium Nitride based Solid State Lighting. **08/2012-now**
- Attracted Independent EPSRC (Engineering and Physical Sciences Research Council) Prized Postdoctoral funding worth £100K. **10/2011-07/2012**
- Member of £ 1/2 million EPSRC funded project between Imperial College London and the University of Sheffield (EPSRC grant: EP/F033427/1 and EP/F03427X/1). **08/2008-08/2011**
- Member of £ 3/4 million BBSRC funded project for the growth and optimization of MBE grown quantum dots for broadband Applications (BB/E002676/1). **05/2009-08/2012**
- Member of five projects worth ~1 million Saudi Riyals, funded by e-learning centre at Deanship of Academic Development (DAD) of KFUPM to develop e-courses for Electrical Engineering Dept. These courses now stands at 654 all delivered to WebCT, catering to all distance learning programs in the KSA. **08/2004-08/2008**
- Co-investigator, Project titled "DC Power Supply Simulator", College of Engineering Sciences, Innovation Grants Scheme (2005-2006), KFUPM. **09/2005-08/2006**

STUDENT ADVISED

Farzan Ghodsi (KAUST School), SRSI (Saudi Research Science Institute) Mentor **Summer 2014**

Awarded for best scientific paper/presentation among the top 50 students from throughout Saudi Arabia

Hala Hashim (Ph.D), Project with KAUST/University of Michigan, USA

"A systematic study of annealing on the quantum dot laser material at 1300nm" **09/2012-now**

Ahmad Al-Jabr (Ph.D.) Project with KAUST

" Developing high power quantum well Red laser at 640nm" **09/2012-now**

Hifsa Shahid (Ph.D.), Project with the University of Sheffield

"Gain Characterisation of 1.3μm GaAs Quantum Dot Laser" **08/2011-11/2012**

Supervised B.Sc. final year projects at KFUPM **2003-2008**

PUBLICATIONS

US PATENT

- B.S.Ooi, M.A Majid et al., " Controlling the emission wavelength in group III-V semiconductor laser diodes" United States Patent and Trademark Office (USPTO), Serial No. 62/184,111 June 24, 2015.

ARTICLES IN REFEREED JOURNALS

1. R. T. ElAfandy, A. F. AbuElela, P. Mishra, B. Janjua, H. M. Oubei, U. Büttner, **M. A. Majid**, T. K. Ng, J. S. Merzaban, B. S. Ooi, **Small 2017**, 13, 1603080.
2. AA Al-Jabr, P Mishra, **MA Majid**, TK Ng, BS Ooi "Effect of annealing InGaP/InAlGaP laser structure at 950 C on laser characteristics"- Journal of Nanophotonics, 2016
3. **M. A. Majid** ; Ahmad A. Al-Jabr ; Rami T. Elafandy ; Hassan M. Oubei ; Mohd S. Alias, et al. " First demonstration of orange-yellow light emitter devices in InGaP/InAlGaP laser structure using strain-induced quantum well intermixing technique ", Proc. SPIE 9767, Novel In-Plane Semiconductor Lasers XV, 97670A (**March 7, 2016**); doi:10.1117/12.2202768.
4. **M.A. Majid**, A.A. Al-Jabr, H.M Oubei, M.S. Alias,D.H. Anjum, T.K. Ng, B.S. Ooi, "First demonstration of InGaP/InAlGaP based orange laser emitting at 608 nm", Electronics Letters, 51, (14), p. 1102-1104, 2015

5. H. Hashim, M. Z. M Khan, **M. A. Majid**, T. K. Ng, D. Cha, B .S. Ooi "InAs/GaAs quantum-dot intermixing: comparison of various dielectric encapsulants" Optical Engineering 54 (10), 107107-107107, 2015

6. R. T. El Afandy**, M. A. Majid**, T. K. Ng, L. Zhao, D. Cha, and B.S. Ooi, "Exfoliation of Threading Dislocation-Free, Single-Crystalline, Ultrathin Gallium Nitride Nanomembranes," Advanced Functional Materials 24 (16), 2305-2311, 2014.

7. **M. A Majid**, H. Hashim, M.Z.M Khan, Tien Khee Ng and Boon S. Ooi, "Multi-state Lasing from Intermixed InAs/GaAs Quantum Dot Laser" to be submitted 2014.

8. H. Shahid , D. T. D. Childs, **M.A. Majid**, R. Airey, K. Kennedy, R.A. Hogg, E. Clarke, P. Spencer and R. Murray "Gain Spectrum Measurement Using the Segmented Contact Method with an Integrated Optical Amplifier" J. Appl. Phys. 115, 163105, 2014.

9. H. Hashim, M. Z. M Khan, **M. A. Majid**, T. K. Ng, D. Cha, B .S. Ooi "1.3μm InAs/GaAs quantum dot intermixing: a comparison of various dielectric encapsulants" submitted to Semicond. Sci. Technol, IOP, 2014.

10. A. A. Al-Jabr, **M. A .Majid**, M.S. Alias, D.H. Anjum, T. K. Ng and B. S. Ooi "Significant Blue-shift on GaInP\AlGaInP Red Laser Emitting at 635nm by Impurity-Free Vacancy Disordering Using SiO2 Capping" submitted 2014.

11. M. Z. M Khan, **M. A. Majid**, T. K. Ng, D. Cha, B .S. Ooi, "Simultaneous Quantum Dash-well Emission in a Chirped Dash-in-well Superluminescent Diode with Spectral Bandwidth > 700 nm," Optics Letters, Vol. 38, Issue 19, pp. 3720-3723, Oct 2013.

12. **M. A. Majid**, M. Hugues, D. T. D. Childs, R. A. Hogg, "Effect of Deposition Temperature on the Opto-Electronic Properties of MBE Grown InAs QD Devices for Broadband Applications" Jpn. J. of Appl. Phys., Vol. 51, no.2, pp. 02BG09-02BG09-4, Feb 2012.

13. **M. A. Majid**, M. Hugues, S. Vézian, D. T. D Childs, R.A. Hogg, "Optimization of Quantum-Dot Molecular Beam Epitaxy for Broad Spectral Bandwidth Devices" Photonics Journal, IEEE, vol.4, no.6, pp.2066-2073, Dec 2012.

14. **M. A. Majid**, D. T. D. Childs, H. Shahid, R. Airey, K. Kennedy, R.A. Hogg, E. Clarke, P. Spencer and R. Murray, "1.52 μm Electroluminescence from GaAs-based Quantum Dot Bilayers" Electron. Lett., vol. 47, no.1, pp. 44-46, Jan, 2011.

15. **M. A. Majid**, D. T. D Childs, K. Kennedy, R. J. Airey, R. A. Hogg, E. Clarke, P. Spencer and R. Murray, "O-band Excited State Quantum Dot Bilayer Lasers" App. Phys. Lett., vol. 99, no. 5, pp. 051101-051101-3, Aug 2011.

16. **M. A. Majid**, D. T. D Childs, H. Shahid, S. Chen, K. Kennedy, R. J. Airey, R. A. Hogg, E. Clarke, P. Howe, P. Spencer and R. Murray "Towards 1550 nm GaAs-based Lasers Using InAs/GaAs Quantum Dot Bilayers" IEEE J. Sel. Topics Quantum Electron., vol. 17, no.5, pp. 1134-1342, Sept 2011.

17. **M. A. Majid**, D. T. D Childs, H. Shahid, S. Chen, K. Kennedy, R. J. Airey, R. A. Hogg, E. Clarke, P. Spencer and R. Murray "Excited State Bilayer Quantum Dot Lasers at 1.3 μm" Jpn. J. of Appl. Phys., vol. 50, no. 1, pp. 04DG10-04DG10-3, 2011.

18. **M. A. Majid**, D. T. D. Childs, R. Airey, K. Kennedy, R. A. Hogg, E. Clarke, P. Spencer and R. Murray, **"**Strain Engineered Bilayers for Extending the Operating Wavelength of QD Lasers", IET Optoelectron., vol. 5, no.3, pp. 100-104, 2011.

19. **M. A. Majid**, D. T. D. Childs, R. Airey, K. Kennedy, R. A. Hogg, E. Clarke, P. Spencer and R. Murray, "Bilayer for Extending the Wavelength of QD Lasers" J. Phys.: Conf. Ser., vol. 245, no. 1, p. 012083, 2010.

20. A. Abdullah, **M. A. Majid**, "Analysis of Multi-Layer ARROW", Journal of Microwaves and Optoelectronics, Vol. 3, No. 2, 2003.

REFEREED CONFERENCE PROCEEDINGS AND PRESENTATIONS

1. **Majid, M.A**., Al-Jabr, A.A., Oubei, H.M., Alias, M.S., Anjum, D.H., Ng, T.K., B. AlNahass, M.Shehata, and

Ooi, B.S., First demonstration of orange-yellow light emitter devices in InGaP/InAlGaP laser structure using strain-induced quantum well intermixing technique, Proceeding SPIE photonics west 2016.

2. **M. A Majid**, H. Hashim, M.Z.M Khan, Tien Khee Ng and Boon S. Ooi, "Simultaneous Five-State Lasing from Intermixed InAs/GaAs Quantum Dot Laser" SPIE Photonic Asia, Beijing, Oct 2014.

3. R. T. El Afandy, **M. A. Majid**, T. K. Ng, L. Zhao, D. Cha, and B.S. Ooi "Chemical exfoliation and optical characterization of threading-dislocation-free gallium-nitride ultrathin nanomembranes" Proc. SPIE, Oct 2014.

4. H. Shahid, D. T. D. Childs, **M. A. Majid**, B. J. Stevens, R. A. Hogg, E. Clarke, P. Spencer, and R. Murray, "Effect of Inhomogeneous Linewidth on Lasing Spectrum of Quantum Dot Laser Devices for O-band Optical Communication" UK Semiconductor conference, University of Sheffield, UK, July 2014.

5. H. Shahid, D. T. D. Childs, **M. A. Majid**, B. J. Stevens, R. A. Hogg, E. Clarke, P. Spencer, and R. Murray, "A Comparison of Gain Spectrum Measurement Techniques" UK Semiconductor conference, University of Sheffield, UK, July 2014.

6. **M. A. Majid**, M. Hugues, D. T. D. Childs, D.H .Anjum, D.K. Cha, B.S.Ooi, and R. A. Hogg, "Engineering Opto-Electronic properties of Molecular Beam Epitaxy Grown Quantum Dot Structures," SPIE Photonic west, San Francisco, California United States**,** Feb 1-6, 2014.

7. **M. A. Majid**, D. T. D Childs, K. Kennedy, R. J. Airey, R. A. Hogg, E. Clarke, P. Howe, P. Spencer and R. Murray "Absorption and Single-Pass Gain Measurements in Bilayer Quantum dot Laser Structure" SIECPC 2013, Proc. IEEE., Apr 2013.

8. **M. A. Majid**, M. Hugues, S. Vézian, D. T. D. Childs, R. A. Hogg and B.S. Ooi, **"**Revisited Quantum Dot Growth Conditions for Optical Coherence Tomography Application" 7th International conference for Materials for Advance Technologies (ICMAT 2013), Singapore, June 2013.

9. **M. A. Majid**, M. Hugues, D. T. D. Childs, D.H .Anjum, D.K. Cha, B.S.Ooi, and R. A. Hogg, "Effect of Low-Growth-temperature Component of the GaAs Spacer Layers on Optoelectronic Characteristics of MBE Grown QD Devices" The 22nd HETECH workshop, Glasgow, U. K, Sept 2013.

10. M. Z. M. Khan, **M. A. Majid**, T. K. Ng, and B. S. Ooi, "High Performance Superluminescent Diode with InAs Quantum-Dashes and Chirped AlGaInAs Barriers Active Region" Proceedings IEEE photonics conference (IPC), U.S.A, Sept 2013.

11. M. Hugues, **M. A. Majid** S. Vézian, D. T. D. Childs, R. A. Hogg "Revisited Quantum Dot Growth Conditions for Broadband Applications" UK Semiconductors Conference, University of Sheffield, U.K, July 2012.

12. **M. A. Majid**, H. Shahid, S.Chen, D. T. D. Childs, R. J. Airey, K. Kennedy, R. A. Hogg, E. Clarke, P. Spencer and R. Murray, "Gain and Absorption Characteristics of Bilayer Quantum Dot Lasers beyond 1.3 μm" Novel In-Plane Semiconductor Lasers X, Proc. SPIE**,** vol. 7953, pp. 795303-795303-7, Photonic west, U.SA, Jan 2011.

13. **M. A. Majid**, M. Hugues, D. T. D. Childs, K. Kennedy, R. A. Hogg, "Molecular Beam Epitaxy for high Spectral Bandwidth Quantum Dot Sources for Optical Coherence Tomography Applications" Photonic west, San Francisco**,** U. S.A, Jan 2011.

14. **M. A. Majid**, M. Hugues, D. T. D. Childs, R. A. Hogg, "Optimization of Quantum Dot Molecular Beam Epitaxy Diode for Broadband Applications" SSDM 2011, Nagoya Japan, 2011.

15. **M. A. Majid**, D. T D Childs, K. Kennedy, R. Airey, R.A. Hogg, E. Clarke, P. Spencer,R. Murray, "Towards 1.55 μm GaAs Based Lasers Using Quantum Dot Bilayers," International Semiconductor Laser Conference (ISLC), Japan, Proceedings IEEE, pp.69-70, 2010.

16. **M. A. Majid**, D.T.D Childs, H. Shahid, S.Chen, K. Kennedy, R. J. Airey, R. A. Hogg, E. Clarke, P. Spencer and R. Murray, "Excited State Bilayer Quantum Dot Lasers at 1.3 μm" SSDM 2010**,** University of Tokyo, Japan, Sept. 2010.

17. **M. A. Majid**, D. T. D. Childs, R. Airey, K. Kennedy, R. A. Hogg, E. Clarke, P. Spencer and R. Murray, "Bilayer for Extending the wavelength of QD lasers" QD2010**,** East Midlands Conference Centre, Nottingham, U.K, April 2010**.**

18. **M. A. Majid**, M. Hugues, D. T. D. Childs, K. Kennedy, R. A. Hogg "Optimisation of Quantum Dot Deposition by Molecular Beam Epitaxy for high Spectral Bandwidth sources for Optical Coherence Tomography Applications" Photon 2010**,** University of Southampton, U.K, Aug. 2010.

19. **M. A. Majid**, D.T.D. Childs, S. Chen, H. Shahid, K. M. Groom, K. Kennedy, R. A. Hogg, E. Clarke, P. Spencer, and R. Murray, "Gain Spectra Analysis of Bilayer Quantum Dot Lasers beyond 1.3µm" PGC 2010, Singapore, Proc. IEEE, pp.1-4, 2010.

20. **M. A. Majid**, D.T.D. Childs, K. Kennedy, R. A. Hogg, E. Clarke, P. Spencer, and R. Murray, "Bilayers for Extending the Operating Wavelength of QD Lasers" Semiconductor and Integrated Optoelectronics (SIOE) conference**,** Cardiff University, U.K, April 2010.

21. P. Spencer, J. Shi, E. Clarke, R. Murray, **M. A. Majid**, D. T.D. Childs, R.Alexander, K. Groom and R. A. Hogg, "Dual-state Lasing and the case against the Phonon Bottleneck", Proc. SPIE**,** vol. 7616, pp. 761606-761606-11, 2010.

22. P. Spencer, E. Clarke, R. Murray, **M. Majid**, D. Childs and R. Hogg, "Thermal Effects in QD Lasers: Carrier Diffusion, Dual-state lasing and the case against the Phonon Bottleneck" UK Semiconductor conference, University of Sheffield, UK, July 2009.

23. M.A. Khan, A.W. Siddiqui, and **M. A. Majid**, "Interactive Learning for Waveform Dynamics of Diode Rectifiers and RC Filter in DC Power Supply", Proc. 34th Annual Conference of the IEEE Industrial Electronics Society, Orlando, FL, 3530-3534, 2008.

24. M. Deriche, A. Khan, **M. A. Majid**," Enhancing Student Learning in Signal Processing using Macromedia Animations" The Third International Conference on Mathematical Sciences, Al Ain, UAE, 2008.

25. **M.A. Majid,** H. A. Jamid "Gaussian Beam Coupling to Multi-Layer ARROW", 10th IEEE Technical Exchange Meeting, KFUPM, Dhahran-31261, 2003.

26. **M. A. Majid**, M. A. Khan "Sensing Applications Based on Evanescent Field", Proc. of the first GCC Industrial Electrical & Electronics Conference, Gulf International Convention & Exhibition Centre Bahrain, 13-14 May 2003.

27. A. Abdullah, **M. A. Majid**, "Analysis of Multi-Layer ARROW", Conference on Electronics, Circuits and Systems (ICECS2003), Proc. IEEE, vol 3, pp.1050 – 1053, 2003.

POSTER PRESENTATIONS AND INVITAED LECTURES

1. Boon S. Ooi, Rami T. ElAfandy, Ahmed B. Slimane, **M. Abdul Majid**, and Tien Khee Ng "GaN Nano-membrane for Optoelectronic and Electronic Device Applications" ACP, Shanghai, Nov.2014

2. A. Ben Slimane, R.T. ElAfandy, A. Gasim, A. Najar, **M.A. Majid**, T. K. Ng and B. S. Ooi, "GaN and InGaN Nanoparticle for White LED Applications" Invited Talk, SIECPC 2013.

3. R.T. Elafandy, **M. A. Majid**, T.K. Ng,, B.S. Ooi, "Exfoliation of Dislocation Free Single-crystalline GaN Layer" Invited Talk, 7th International conference for Materials for Advance Technologies (ICMAT 2013).

4. H. Shahid, D.T.D. Childs, **M.A. Majid**, K. Kennedy, R. Airey, R.A. Hogg, E. Clarke, P. Spencer, R. Murray, "Integrated Amplifier for Gain Spectra Measurement of Bilayer Quantum Dot Laser Material" UK Semiconductor conference, University of Sheffield, UK, July 2011.

5. **M. A. Majid**, D. T. D. Childs, R. Airey, K. Kennedy, R. A. Hogg, E. Clarke, P. Spencer and R. Murray, "Bilayer for Extending the Wavelength of QD lasers" QD2010**,** East Midlands Conference Centre, Nottingham, UK, April 2010**.**

6. **M. A. Majid**, D.T.D. Childs, R.J. Airey, R. A. Hogg, P. Spencer, E. Clarke and R. Murray, "Direct Comparison of Bilayer and Single Layer QD Lasers" UK Semiconductors Conference, University of Sheffield U. K, July 2009.

NEWS ITEM

Featured article: “First demonstration of InGaP/InAlGaP-based 608 nm orange laser using a cost effective approach, with potential applications in lighting and VLC”, 2015

Magazine Article “Quantum Well Intermixing: The Quest For Orange And Yellow Lasers” June 2016.

Featured article: “Joining the Dots, UK researchers have extended the emission wavelength of quantum dots on GaAs to 1.52 μm using a bilayer growth technique.

Research work on quantum dot excited state laser was highlighted as advance work in recent book “Advances in Nanotechnology Research and Application: 2012 Edition”.

SKILLS

- Operating Platforms: Mac, Windows
- Programming Languages: FORTRAN, C++
- Commercial Programs: PSpice, MATLAB, LATex, MS Visio, Smart Draw, MS Office, Origin, Adobe Photoshop and Flash.
- 4 years (part-time) of hands-on experience in the e-Learning/mLearning design & development. I have expertise in many e-learning development tools, technologies and standards like Adobe Flash, Articulate Presenter/QuizMaker/Engager, Articulate Storyline, Adobe Edge, HTML5, Dreamweaver, Authorware, Adobe Photoshop/Illustrator, Adobe Presenter, CourseBuilder, and many more.
- Extensive working experience in one of the most advanced nano-fabrication clean room and nano-measurement equipment’s facilities at National center for III/V technologies of the University of Sheffield and the Core labs at King Abdullah University of Science and Technology, extensively utilized the techniques of dry plasma etching (ICP,RIE), lithography, atomic layer deposition, chemical vapor deposition, wet chemical etching, atomic force microscopy, scanning electron microscopy, RTP, dicing, bonding, packaging and other nano fabrication tools.
- 6 years of experience using/training oxford plasma etching/deposition equipment’s, process optimization and characterization.
- Device fabrication process coordinator: Responsible for training students in device fabrication and process integration.
- Developed fabrication Process for Electronic and Optoelectronic devices.
- As a member of lab development team at KFUPM (2002-2008) involved in calibration of electromagnetic and optical Fibre equipment’s, interfacing computer with digital storage oscilloscope, networking printers, scanners, and remote desktop login.

LABORATORY DEVELOPMENT

- Involved in the development of optoelectronic laboratory to measure power-current-voltage, reverse leakage, gain and absorption, direct modulation, mobility, photocurrent, parasitic capacitance, photoluminescence measurements at room and cryo-temperatures.
- Developed/re-structured EE 203 (Electronics-1) and EE 303 (Electronics II) in the Electrical Engineering Department of the King Fahd University of Petroleum and Minerals.
- During PhD studies, written course material and module re-structured for fabrication and testing of Schottky diode in the Electronic and Electrical Engineering Department of the University of Sheffield.

AWARDS & HONORS

- Awarded Independent EPSRC, UK, Postdoctoral Research Funding.
- Student Travel Award SSDM (Solid State Devices and Materials) conference Japan 2010.
- Awarded EPSRC Scholarship for PhD at the University of Sheffield.
- Awarded Research Assistantship, King Fahd University of Petroleum and Minerals.
- Secured 1st Position in Junior college with 87.4%

- Secured 1st Position in school (SSC) with 77%
- Secured 2nd position in BS and passed with distinction.
- Recipient of South Central Railway Scholarship for educational excellence.

OTHER PROFESSIONAL ACTIVITIES

- Peer reviewer of Elsevier, IOP, IET, IEEE and AIP publishing.
- Judge- student poster award, University of Sheffield, Jan 2011.
- Project management training for researchers, Researcher Development Team, The University of Sheffield, April 30-4 May 2012.
- Participated in induction workshop on how to successfully complete Postdoctoral Fellowship Sept.2011.
- Attended and certified for short course on "Content Development for Web-Based Courses Using Macromedia Authorware and Flash" organized by the Deanship of academic Development (DAD) KFUPM, Aug. 2003.
- Attended and Certified for workshop on "Striving for Excellence in University Teaching and Learning –III" organized by DAD KFUPM, April 7-16 2002.
- Participated in workshop entitled "Increasing Effectiveness as a University teacher" DAD KFUPM, Sept 9-11 2002.
- Participated in workshop entitled "How to be an Effective University Teacher" DAD KFUPM Sept. 7-8 2002.
- Certified for Advance Adobe Flash Development, Sept. 2005.
- Served many departmental committees at KFUPM including ABET.

PROFESSIONAL MEMBERSHIPS

- Member of Institute of Electrical and Electronics Engineers.
- Member of Institute of Physics, U.K.
- Member of Institute of Electronics and Electrical Engineer New Delhi India.
- Member of Saudi Society of Electrical Engineers Saudi Arabia.

REFERENCES

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