

Resume

Dr. Mohammed Ashraf Gondal

Distinguished Professor
Coordinator Laser Research Group

Field of Specialization

Physics

**(Laser and Their Applications
Nanotechnology, Solar/renewable Energy,
Environment Protection & Monitoring, Sensors, CO₂
Reduction, Hydrogen Production, Chemical Science,
Waste Water Treatment, Photocatalysis and
Spectroscopy)**

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Career Objectives

Community Services, Teaching and Research in the field of lasers, environment protection, clean energy, nanotechnology, atomic and molecular spectroscopy, laser applications in nanotechnology (synthesis of nano materials), wetting and non wetting surfaces for oil water separation, self cleaning & dust repellent, desulfurization of crude oil, plasma sources, sensors, solar cells, clean environment, development of laser based techniques for pollution monitoring, mineral exploration, analysis of geological rocks and material characterization like Photoacoustic, LIBS, LIDAR (for atmospheric remote sensing), Optogalvanic, Laser enhanced ionization (LEI) and laser/solar induced photo-catalysis and its applications in fuel cells, water purification, CO₂, CH₄ (Carbon) management/utilization for value added hydrocarbons and petrochemicals using nano materials, which are in line with National Strategic & Technology Plan (NSTIP) of KSA as well the Global and Kingdom needs. Collaborating with various universities (MIT,NUS,Nanjing University) and departments on multidisciplinary problems on sustainable development by working in above mentioned disciplines.

Education Profile:

- **Ph.D.** Laser Physics/Spectroscopy, Institute of Applied Physics, Rheinischen Friedrich Wilhelms, University, Bonn, Germany, 1983.
Thesis: High Resolution Laser Magnetic Resonance(LMR) Spectroscopy of CF Radical Using CO Laser" Ph.D. Thesis, Institute of Applied Physics, Rheinischen Friedrich Wilhelms University Bonn, Germany.
- **M. Phil.** Laser Physics, Quaid-e-Azam University, Islamabad, Pakistan, 1977.
Thesis: Spectroscopy of Laser produced plasmas using Q-switched Nd:YAG Laser" M.Phil Thesis, Quid-e Azam University, Islamabad.
- **M.Sc.** Physics, Punjab University, Lahore, Pakistan, 1973.
- **B.Sc.** Physics, Math, Punjab University, Lahore, Pakistan, 1971.

Professional Profile: (Teaching and Research Experience)

May 2010 – to date **Distinguished Professor**, Laser Research Group, Physics Department and Center of Excellence in Nano Technology(CENT) King Fahd University of Petroleum & Minerals (KFUPM), Dhahran 31261, Saudi Arabia.

June 2012- august 2012, **Visiting professor** (Research affiliate), MIT, Cambridge, USA.

June 2013- august 2013, **Visiting professor** (Research affiliate), MIT, Cambridge, USA.

June 2014- august 2014, **Visiting professor** (Research affiliate), MIT, Cambridge, USA.

October 2009- to date **Coordinator Laser Research Group**

March 2002 -May2010 **Professor**, Physics Department
King Fahd University of Petroleum & Minerals (KFUPM)
Dhahran 31261, Saudi Arabia

August 1991 - **Research Scientist I**
March 2002 Center for Applied Physical Science, Research Institute
King Fahd University of Petroleum and Minerals (KFUPM)Dhahran, 31261 Saudi Arabia.

June 1991 - **Research Scientist II**
July 1995 Center for Applied Physical Science, Research Institute King Fahd, University of
Petroleum and Minerals (KFUPM)
Dhahran 31261, Saudi Arabia.

August 1984 - November 1991	Senior Research Scientist , Post Graduate Center for Electro-optics Tripoli.
July 1980 - August 1984	Research Fellow Institute of Applied Physics, Rheinischen Friedrich Wilhelms University Bonn, Germany.
January 1977 - 1980	Research Scientist Laser Group, PINSTECH, Nilore Islamabad, Pakistan.

Communication Skills: writing, reading and speaking: English, German, Urdu, Punjabi, Arabic

Professional Affiliations:

- Member American Physical Society (APS) 2011---till date
- American Chemical Society (Saudi chapter).
- Member, Saudi Arabia Water Environ. Association (since 2010)
- Member, German Physical Society, 1981 - 1988.
- Member, International Committee on space Research (COSPAR), 2003 – till date
- Life Member, Pakistan Institute of Physics.
- Member, Australian Optical Society, 1996- to date
- Member, Institute of Physics, Australia, 1997- to date
- Member, Association of Professional Engineers and Scientists, Australia (APESMA), 1997- to 2001
- Member, Saudi Physical Society.

Editorial Activities, Conference Organization and Key Note Speaker:

1. **Associate Editor**, Journal of Sensors and Instrumentation
<http://uscip.org/JournalsDetail.aspx?journalID=42>
2. **Member Editorial Board**, Arabian Journal of Science and Engineering (AJSE). Springer, (ISSN 1319-8025), <http://www.editorialmanager.com/ajse-sci/>.
3. **Member Editorial Board**, **International Journal of Photo-energy**
<http://www.hindawi.com/journals/ijp/editors>
4. **Editorial Board Member**, International Journal of Spectroscopy, ISN # 1687-9449; e-SN # 1687-9457. <http://www.hindawi.com/journals/ijps>
5. **Editorial Board Member**, Journal of Engineering , ISSN: 2314-4912 (Print) ISSN: 2314-490(Online); <http://www.hindawi.com/journals/je/workflow/>
6. **Member Editorial Board**, Research Journal of Environmental and Earth Sciences,
<http://www.maxwellsci.com/jp/editor.php?jid=RJEES>
7. **Member Editorial Board**, Research Journal of Applied Sciences, Engineering and Technology,
<http://www.maxwellsci.com/jp/editor.php?jid=RJEES>
8. **Member Technical Committee, EMN Meeting on Metallic Glasses: Energy Materails, Nanotechnology, Kuala Lumpur Malyisa**, 12-16th Septemebr 2016). <http://emnmeeting.org/Metallic-Glasses/committees/>
9. **Member Technical Committee, Second International Conference on Electro-optics and image processing (ICOIP 2015)** Chicago, Illinois, USA, 2-4 th july 2015). <http://www.icoip.org/news.html>
10. **Member Scientific Committee , International Workshop on “Optics and Photonics”, Riyadh SaudiArabia (21February, 2016).**
11. **Member Scientific Committee,12^h International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (Islamabad, 15-17 Dec, 2015).
12. **Member Scientific Committee,11th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,14)** IEEE sponsored (Charlotte, North Carolina, USA, 15-17 Dec, 2014).
13. **Member International Steering and Scientific Committee,10th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,13)** IEEE sponsored (Cyprus,12-14 Dec, 2013).

14. **Member International Steering and Scientific Committee, 9th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,12)** IEEE sponsored (Istanbul, 12-14 Dec, 2012 Turkey).
15. **Member Scientific Committee , International Conference on Atomic, Molecular and Optical Physics, Aljouf Saudi Arabia (29 April -2nd may, 2015).**
16. **Member International Steering and Scientific Committee, 8th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,11)** IEEE sponsored (Riyadh, 19-21 Oct, 2011 Saudi Arabia).
17. **Member Program and Scientific Committee of 1st International Conference on Laboratory Technology (LABTECH)**, Manama, Bahrain (20 -22 October , 2008).
18. **Member International Program Committee , 2nd International Conference on Instrumentation Control and Automation (ICA)** , November 15-17, 2011 at Bandung, West Java, **Republic of Indonesia.**
19. **Member International Steering Committee, International Symposium on Vacuum Science and Technology**, Islamabad, Pakistan (2-6 November , 2011).
20. **Member International Steering Committee, International Symposium on Vacuum Science and Technology**, Islamabad, Pakistan (1st -5 December, 2012).
21. **Member Program and Scientific Committee**, International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain.
22. **Member Program and Scientific Committee of 2nd International Conference on Laboratory Technology (LABTECH)**, Doha, Qatar, (October , 2011).
23. **Member Program and Scientific Committee** responsible for Joint exhibition with French for organizing an Exhibition on Lasers and their Applications, titled "Lights on Light" for 10 days, November, 1994.
24. **Invited Speaker**, The 7th International Conference on Optical, Optoelectronic and Photonic Materials and Applications, June 13–17, 2016, Montréal, Québec, Canada.
25. **Invited Speaker**, International Conference on Physics and Chemistries of Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
26. **Invited Speaker**, 17th Photonics North, Ottawa (9-11th June , 2015)
27. **Invited Speaker, KAUST-UKFUPM** Workshop on Solid-State Lighting, 2012 (**April 13-14**), Dhahran , Saudi Arabia.
28. **Invited Speaker, 3rd Saudi International Nanotechnology/ Nanophotonics Conference, 2014 (December 1-3)**, KACST-KAUST-UCSB Riyadh, Saudi Arabia.
29. **Invited Speaker, KAUST-UCSB-NSF** Workshop on Solid-State Lighting, 2012 (**October 13-14**), (KAUST), Thuwal, Saudi Arabia,
30. **Invited Speaker, “3^{6th} International Nathiagali Summer College (INSC), on Photovoltaic’s”** (4-8th July, 2011) Pakistan.
31. **Invited Speaker**, International Conference on Oxide-based Materials and Devices II, (Conference OE108, OPTO SPIE West), Photonic West, The Moscone Center, San Francisco, California United States 22 - 27 January 2011.
32. **Key Note Speaker**, International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain (October 25-27, 2010).
33. **Key Note Speaker**, International Conference and Exhibition on Laboratory Technology, Kuwait, November 4-5, 2009.
34. **Key Note Speaker**, workshop on Laser Applications in Chemical Analysis and Oil Industry (27-28 April ,2008) Khartoum, Sudan.
35. **Distinguished Invited Speaker**, Laser Conference organized by World Academy for Laser Applications (WALA) Bahrain International Exhibition Centre. October 19-21, 2009.
36. **Invited Speaker**, the 4th International Symposium on Non-Crystalline Solids and The 8th Brazilian Symposium on Glass and Related Materials, Aracaju, SE, Brazil (Oct 19-26, 2007).
37. **Key Note Speaker** , 9th Symposium on analytical and environmental Chemistry, Baragali , Pakistan (July 24-26, 2006).

Honors, Awards, Recognitions:

- Received Highly prestigious **AL-Marai Prize** for Innovative Research in the area of waste water treatment using nanocatalysts in the Field of Environment for year 2010/2011.
- Received **Distinguished Professorship Award** from the King Fahd University of Petroleum & Minerals,

- academic year 2009-2010, 2012-2013, 2015-2016.
- Received **Excellent Oral Presentaion Award** during Interntional Conference on Optoelectronics and image processing (ICOIP 2015) held at Chicago (July 2-4, 2015) USA, sponsored by American Society for Research (ASR).
 - Received **Best Project Award** from NSTIP/KFUPM for academic year 2014 for National Stretgic Technology and Innovation Plan (NSTIP) Project # **NAN93-4**; Applications Of Nanoscale Materials (Metal Oxides) for waste water treatment and corrosion inhibition using Laser Induced Photo-Catalytic Process among 200 projects.
 - Received **Distinguished Researcher Award** from the King Fahd University of Petroleum & Minerals, academic year 2005-2006, 2010-2011, 2015-2016.
 - **Best Paper Award** entitled “Detection of Ozone using Fourth Harmonic of Nd:YAG Laser, 1st International Conference & Exhibition on Laboratory Technology, Manama Bahrain (Oct 20-22, 2008).
 - Received **Best Project Award** from King Fahd University of Petroleum & Minerals, academic year 2008-2009. Sabic project # SABIC - 07004 entitled “Laser induced photo-catalytic removal of phenol for waste water treatment”
 - One of the Recipient of **Best Paper Award entitled**, Plastic Deformation of Steel Surface due to Laser Shock Processing, by B.S. Yilbas, A.F.M. Arif and M.A. Gondal (2006) published in Journal of Engineering Manufacture, Volume 220, Number 6, 2006, pp. 857-867(11) by British Mechanical Engineers for 2007.
 - Received **HRH Prince Mohammed Bin Fahd Best Team Award** for Excellence in Research, 1995.
 - **Seven published papers listed in Top 25 hot Papers or Top Cited** as awarded by Science Direct.
 - **Silver Medal and Merit Certificate** for Second Position in M.Sc. Physics Examination, University of Punjab, Lahore (1973 Session).
 - **DAAD** (German Academic Exchange Service) **Visiting Professor Fellowship**, Free Univesity, Berlin, Germany (July 15 - August 25, 2003)
 - **DAAD** (German Academic Exchange Service) **Visiting Professor Fellowship**, Heidelberg Universty Germany (July 21 - August 20, 1995).
 - **DAAD** (German Academic Exchange Service) **Fellowship Research Scholar Ph.D.** (1979-1983).
 - **Associate Membership, International Center for Theoretical Physics (ICTP)** Trieste, Italy, 1988-1995.
 - **Reviewer for many Journals of high profile:**
 - Reviewer for Nature Scientific Reports (OSA).
 - Reviewer for Applied Optics (OSA).
 - Reviewer for ACS Applied Materails and Surfaces(ACS)
 - Reviewer for Applied catalysis A, B (Elsevier).
 - Reviewer for Catalysis communications (Elsevier).
 - Reviewer for Optics and laser technology (Elsevier).
 - Reviewer for Applied Surface Science (Elsevier).
 - Reviewer for chemosphere (Elsevier).
 - Reviewer for Laser and Optics in Engineering (Elsevier).
 - Reviewer for Optical and Quantum Electronics (Elsevier).
 - Reviewer for Energy & Fuels (ACS, USA).
 - Reviewer for Asian Journal of Spectroscopy (spectral- force publications)
 - Reviewer for Electrochemical and Solid-State Letters(ECS)
 - Reviewer for Material Chemistry and Physics (Elsevier).
 - Reviewer for Nanoparticle Research (Springer).
 - Reviewer for Catalysis Communications (Elsevier).
 - Reviewer for Nanotechnology (AOP).
 - Reviewer for J. Hazardous Materials (Elsevier).
 - Reviewer for Talanta (Elsevier)
 - Reviewer for Analytical Chemistry (ACS)
 - Reviewer for sensors and actuators (Elsevier)
 - Reviewer for KACST (King Abdulaziz City for Science and Technology) funded proposals.
 - Reviewer for Qatar Foundation funded proposals
 - Reviewer for National Centre of Science and Technology Republic of Kazakhstan funded proposals.
 - Various US Universities Grants proposals

Inventions and Patents

1. **M. A. Gondal**, Z. H. Yamani, M. A. Ali, A. Al-Arfaj and M. A. Dastageer (2005)
“Method for the conversion of methane into C₂ and higher hydrocarbons using UV laser”
USPTO Pat. NO: US2005045467-A1
2. **M. A. Gondal**, A. Hammed and Z. H. Yamani
“Laser Photocatalytic process for the production of hydrogen”
USPTO Pat. NO: US2005226808 .
3. **M. A. Gondal**, J. Pola, Z. H. Yamani , H.M. Masoudi and A. Arfaj (2008) “Laser Based Method for Removal of Sulfur(DMDBT) in Hydrocarbon Fuels”
US Pat# 7,871,501 B2
4. **M.A. Gondal**, Q. Drmsoh, Z. H.Yamani and T.A. Saleh
Method for detection of cyanide in water
US patent # 8460538
5. **M.A. Gondal**, Q. Drmsoh, Z. H.Yamani and T.A. Saleh
Method for detection of cyanide in water II
US patent # 9,034,169 B2
6. **M.A. Gondal**, Q. Drmsoh, Z.H.Yamani and T.A. Saleh
Method of forming zinc peroxide nanoparticles
US Patent 2011/0303050 A1, Pub. Date December 15, 2011.
7. M.N. Siddiqui, K. R. Hooshani, **M.A. Gondal** and Brindaban C. Ranu
Desulfurization of light fuel using a task-specific ionic liquid 1-pentyl-3-methyl Imidazolium Iodate, submitted to USPat # 2014305844-A1
8. Alhooshani K. R, Al S A A, Saleh T A, Siddiqui, M N, Gondal M A Manufacture of metal-oxide/nickel oxide/zinc oxide material used for desulfurizing hydrocarbon composition, involves ultrasonically processing/heating/cooling/filtering mixture containing metal oxide and zinc/nickel compound, **US Pat# 2015182946-A1**
9. K. R. Alhooshani, A. A. Al Swat, T. A. Saleh, M. N. Siddiqui, **M. A. Gondal**, Ionic liquid for desulfurizing light fuels and petroleum products, comprises 1-methyl-3-pentyl-1H-imidazolium periodate, **US Pat # US 9,421,516 B2**
10. M. N. Siddiqui, M.A. Gondal, Khalid R. Alhooshani, A. A. Al Swat, T. A. Saleh,
Utilization of heavy oil ash to produce self consolidated concrete, **US Pat # 9421516.**
11. **M. A. Gondal**, X. Chang, M.A. Ali , M. A. Dastageer, S. M. Zubair, J. H. Lienhard V, Wastewater filtration system and method, **US Pat # 9505635**
12. **M. A. Gondal**, X. Chang, M.A. Ali , M. A. Dastageer, S. M. Zubair, J. H. Lienhard V , Method for Degradation of Multiple Dyes and Toxic Metals in Wastewater Using Solar and Visible Radiation in an Indirect Excitation Scheme **US Pat # 61/918863**
13. **M. A. Gondal**, K. Shen, Z.H.Yamani, X. Chang, 450 nm visible light-induced photosensitized degradation of rhodamine B molecules over BioBr in aqueous solution, **US Pat.No # 9,399,576**
14. A. A. Naqvi, **M.A. Gondal**, Nitrogen detection in bulk samples using a d-d reaction-based portable neutron generator, **US Pat.No # US 917,021, 8 B2.**
15. **M.A. Gondal** and M.Nasr, Inexpensive and Facile Method for Protection against Laser Guided Bombs and Missiles, submitted to USPTO, May 29th , 2015, US pat. # 62-260419
16. **M.A.Gondal**, M.A. Dastageer, A.B. Khalil, S.G. Rashid and U. Baig, Advance Method for Sterilization of Sulfate Reducing Bacteria from Produced Water in Oil Fields, submitted to US Pat. No: 15/136,399
17. K.Varanasi, G.McKinley, **M. A. Gondal** and G. Kwon, Photosensitized-Photoactive Materials and Methods for Making and Using the Same", M.I.T. Case No. 17987 submitted to USPTO, July 2015. U.S. Pat. No.: 62/181,833.
18. Nasser Al-Aqeeli, **M.A. Gondal**, Atif Al-Zahrani, Crumb Rubber Coating with Hydrophobic Surface, 30 Dec. 2015, US pat # 14/984920
19. T. F. Qahtan, L. D. Banchik, **M.A. Gondal**, G.Kwon, D.Panchanathan, U. Baig,

- G.McKinley, Development of Advanced Multifunctional Robust Membrane for Efficient Oil-water Separation and Simultaneous Removal of Organic Pollutants, submitted on 3rd March, 2016.
20. T. F. Qahtan, **M. A. Gondal**, M.A. Dastageer · A Facile Method to Synthesize Stable Carbon Nanoparticles Dispersions and its Application to Fabricate Thermally and Mechanically Stable Superhydrophobic Surfaces using Inexpensive Candle Soot (as Raw Material) submitted on 13th March, 2016.
 21. **M. A. Gondal**, M.A. Dastageer and Umair Baig, Highly Efficient Laser Induced Photo-catalytic Conversion of CO₂ into Methanol using self Synthesized SBA-15 Templated and Non-templated Indium Oxide Nanocrystals , submitted on 12th May, 2016.

List of Publications:

Book/or book Chapters

1. **M. A. Gondal**, “LASER INDUCED PHOTO-CATALYSIS AND ITS APPLICATIONS” in the field of Environment published in the book entitled: Lasers in Chemistry edited by Maximilian Lackner published by Wiley and Sons, USA(Edition - September 2008; ISBN-10: 3-527-31997-2; ISBN-13: 978-3-527-31997-8 - Wiley-VCH, Weinheim).
2. A. Bagabas, **M. A. Gondal**, et al (2010), Laser-Induced Photocatalytic Inactivation of Coliform Bacteria in Water Using Pd-Supported on Nano-WO₃ Catalyst published in book entitled Scientific Bases for the Preparation of Heterogeneous Catalysts: edited by E. M. Gaigneaux (edition 2010), ISBN13: 9780444536013 ISBN10: 0444536019, Elsevier.
3. Khan, M.A., **Gondal, M. A.** , M.H. Rais and M. Rafique (1996), Gain in laser-pumped vapor: Experiment and calculations “ Laser Spectroscopy, 12, ed. M. Inguscio (*World Scientific, Singapore*).
4. X. Chang, **M.A. Gondal**, Z.H. Yamani G. Ji (2012) “Bismuth(V) containing semiconductor compounds: preparation, optical properties and applications in heterogeneous photo-catalysis for water, ed. L.Handong, Z. M. Wang, Bismuth-Containing Compounds Series: Springer Series in Materials Science, Vol. 186, 2013,
5. **M. A. Gondal** and M. A. Dastageer (2013) Laser-Induced Breakdown Spectroscopy – Theory and Applications : ed. S. Musazzi and U. Perini (eds.), Laser-Induced Breakdown Spectroscopy, Springer Series in Optical Sciences 182 (2014), DOI: 10.1007/978-3-642-45085-3-4
6. **Book : M. A. Gondal**, M. A. Dastageer and X. Chang, “Advanced Structured Materials : Novel Bismuth Oxyhalide Based Materials and their Applications , being published by Springer (in progress).

Publications in International (ISI Listed) Journals

1. G. Kwon, D. Panchanathan, S. R. Mahmoudi, **M. A. Gondal**, G. H. McKinley, and K. K. Varanasi (2017) Visible-light-guided Manipulation of Liquid wettability on Photo-responsive Surfaces, Nature Communication (accepted).
2. A. M. Ilyas, **M.A.Gondal**, U. Baig. S. Akhtar and Z.H.Yamani (2017)Titanium dioxide-cadmium sulfide nanocomposite synthesis using Pulsed Laser Ablation in liquid and its evaluation in photocatalytic and photovoltaic applications, Inter. J. Energy Research (on line available).
3. Z.S. Seddigi, M.A. Gondal, Umair Baig, Abul Lais, Saleh A. Ahmed, N.H. Yarkandi, M. A. Abdulaziz (2017) Facile Synthesis of Light Harvesting Semiconductor Bismuth Oxychloride Nano Photo-catalysts for Efficient Removal of Hazardous Organic Pollutants , PLOS One (accepted)
4. U. Baig, M.A. Gondal, A. M. Ilyas (2017), Facile synthesis of band gap engineered polymeric-inorganic nanocomposite catalyst: Isothermal stability, photocatalytic activity under visible light irradiation and photovoltaic performance, Journal of Materials Science & Technology (on line available).
5. D. Yang, **M. A. Gondal**, Z. H. Yamani , U. Baig, X. Qiao, G. Liu (2017), 532 nm nanosecond pulse laser triggered synthesis of ZnO₂ nanoparticles via a fast ablation technique in liquid and their photocatalytic performance, Mater. Scie. Semicond. Processing, 57 (2017) 124–131.
6. **M.A. Gondal**, M.A. Suliman, M.A. Dastageer, Gaik-Khuan Chuah, C. Basheer, Dan Yang, A. Suwaiyan, Visible Light Photocatalytic Degradation of Herbicide (Atrazine)using Surface Plasmon Resonance Induced in Mesoporous Ag-WO₃/SBA-15 Composite J. Mol. Catalysis A, 425, (2016) 208–216

7. U. Baig and **M.A.Gondal** et al (2016) Pharmacological Evaluation of Poly(3-Methylthiophene) and its Titanium(IV)phosphate Nanocomposite: DNA Interaction, Molecular Docking and Cytotoxic Activity, J. of Photochemistry & Photobiology B, 164 (2016) 244–255.
8. B. Gondal, **M.A. Gondal**, M.F. Siddiqui, M. Sarwar, M. Bissonnette. “Colon Cancer and Heavy Metal Exposure: Exploration of Etiology and Risk Factors Using Advanced Laser Spectro-chemical Analysis”. American Journal of Gastroenterology, Oct issue, 2016.
9. X. Chang, Lin Xie, Wei E.I. Sha, K. Lu, Q. Qi, Chenyu Dong, Xingxu Yan, **M.A. Gondal**, S. G. Rashid, Qi I. Dai, W.Zhang, Longqi Yang, Xingdu Qiao, Liang Mao, Peng Wang (2017) Probing the light harvesting and charge rectification of bismuth nanoparticles behind the promoted photoreactivity onto Bi/BiOCl catalyst by (in-situ) electron microscopy, Appl. Catal. B, 201, 1 February 2017, 495-502
10. B. B.S. Jaswal, P.K. Rai, **M. A. Gondal**, V. K. Singh (2016), Spectroscopic Investigations of Calcium Oxalate Kidney Stone Using Fourier Transform Infra-Red Spectroscopy and Laser-Induced Breakdown Spectroscopy, Material Focus, Vol. 5, pp. 1–5, 2016.
11. A. M. Ilyas, **M.A.Gondal**, U. Baig, S. Akhtar and Z.H.Yamani (2016) Photovoltaic performance and photocatalytic activity of facile synthesized graphene decorated TiO₂ monohybrid using nanosecond pulsed laser ablation in liquid technique, Solar Energy, 137, 246-255, 2016.
12. A.A.Khalil, W. O. Younis, **M.A. Gondal** (2016) A comparative study of highly-ionized Al plasma based on dual pulse laser-induced breakdown spectroscopy, Indian J. Phys (2016)1-10. doi:10.1007/s12648-016-0926-6
13. **M.A Gondal**, Adeseda, A.A., Rashid, S.G., Hameed, A. Aslam, M. Ismail, I.M.I. Baig, U., Dastageer, M.A., Al-Arfaj, A.R. Rehman (2016) Facile synthesis, characterization and photocatalytic performance of Au-Ag alloy nanoparticles dispersed on graphitic carbon nitride under visible light irradiations, J. Mole. Catalysis A, 423, Pages 114-125. (2016)
14. U. Baig and **M.A.Gondal** (2016), Design, facile synthesis, molecular docking, DNA binding and cytotoxic activity of polythiophene and polythiophene-titanium(IV)phosphate nanocomposite International Journal of Polymeric Materials (accepted and in press).
15. D. Yang, **M. A. Gondal**, Z. H. Yamani, Qingyu Xu, Dinghan Xiang, Junkui Mao, and Kai Shen (2016) Enhanced Photosensitization Decomposition of Rhodamine B Onto BiOCl Nanosheets with Controllable-Exposed {001} Facets, Nanoscience and Nanotechnology Letters, Vol. 8, 1–8, 2016.
16. U. Baig, **M. A. Gondal** (2016) Facile Synthesis of Polypyrrole-Zirconium(IV) Oxide-Ethanolamine Anion Exchange Nanocomposite and Its Utilization in Membrane Electrode Development for Sensing and Quantitative Detection of As(III) in Water, Nanoscience and Nanotechnology Letters, Vol. 8, 9–16, 2016
17. **M. A. Gondal**, A. M. Ilyas, Umair Baig (2016) Pulsed laser ablation in liquid synthesis of ZnO/TiO₂ nanocomposite catalyst with enhanced photovoltaic and photocatalytic performance, Ceramic International 42 (11), 13151-13160 (2016)
18. **M. A. Gondal**, T. A. Fasasi, A. Mekki, T. A. Saleh, A. M. Ilyas, T. F. Qahtan, and X. Chang (2016) Phase Transformation and Structural Characterization Studies of Aluminum Oxide (Al₂O₃) Nanoparticles Synthesized Using an Elegant Pulsed Laser Ablation in Liquids Technique, Nanoscience and Nanotechnology Letters, Vol. 8, 17–25, 2016.
19. Z. S. Seddigi, **M. A. Gondal**, S.G. Rashid, M. A. Abdulaziz, S. A. Ahmed (2016) Facile synthesis and catalytic performance of nanosheet – nanorods g-C₃N₄-Bi₂WO₆ heterojunction catalyst and effect of silver nanoparticles loading on bare Bi₂WO₆ and g-C₃N₄-Bi₂WO₆ for N-deethylation process, J. Molecular Catalysis A, 420 (2016) 167–177.
20. A. O. Mehder, Y. B. Habibullah, **M. A. Gondal**, Umair Baig (2016), Qualitative and Quantitative Spectro-Chemical Analysis of Dates Using UV-Pulsed Laser Induced Breakdown Spectroscopy and Inductively Coupled Plasma Mass Spectrometry, Talanta 155(2016)124–132.
21. **M. A. Gondal**, A. M. Ilyas, Umair Baig (2016) Facile synthesis of silicon carbide-titanium dioxide semiconducting nanocomposite using pulsed laser ablation technique and its performance in photovoltaic dye sensitized solar cell and photocatalytic water purification, Applied Surface Science Volume 378, p. 8-14. DOI :10.1016/j.apsusc.2016.03.135
22. B. Gondal, **M.A. Gondal** and M.A. Shamees, Gallstones and Gallbladder Cancer: Gaging Levels of Carcinogens in Gallstones Using Highly Sensitive Laser Based Spectrochemical Composition, Gastroenterology 150 (4) June Issue, 2016.
23. **M. A. Gondal**, Y. B. Habibullah, Umair Baig, L. E. Oloore (2016) Direct Spectral Analysis of Tea Samples using 266 nm UV pulsed Laser-induced Breakdown Spectroscopy and Cross Validation of LIBS Results with ICP-MS, Talanta, 152 (2016) 341–352.

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247. M.A. Gondal, R. A. Moqbel, T.F. Qahtan , M.A. Dastageer(2017)Synthesis of visible light responsive Graphene-based Cadmium Sulphide nanocomposites using pulsed laser ablation in liquid (PLAL) Sixth Saudi International Meeting on Frontiers of Physics, 28 Feb-2nd March, 2017, Jazan, Saudi Arabia.
248. M.A. Gondal, Abul Lais (2017) Laser Induced Solar Fuel Generation: A Comprehensive Study, Sixth Saudi International Meeting on Frontiers of Physics, 28 Feb-2nd March, 2017, Jazan, Saudi Arabia
249. Umair Baig, M.A. Gondal (2017) Facile synthesis, characterization, optical and isothermal studies on electrically conductive polypyrrole-titanium dioxide nanocomposite, Sixth Saudi International Meeting on Frontiers of Physics, 28 Feb-2nd March, 2017, Jazan, Saudi Arabia.
250. M.A. Gondal (invited talk) Industrial Applications of Nanomaterials: For Oil production, solar energy harvesting, conversion of CO₂ into value added fuels and water purification, International Symposium on Nano education and Applications, COMSTECH, Islamabad (12-15 Decemebr, 2016).
251. **M.A. Gondal** (invited talk), Synthesis of nanocomposites and their application in energy harvesting, waste water treatment and oil water separation, NOOR 2nd International Symposium on Applied Materials and Nanodevices, National Institute of Laser and Optronics, Islamabad (14-16 November, 2016).
252. **M. A. Gondal** (invited talk), Synthesis and Characterization of High Purity Nano Engineered Metal Oxide Composites Using Advanced Pulsed Laser Ablation in Liquids and Their Applications, 4th Saudi International Nano Conference, Dhahran (25-26th October, 2016).
253. **M. A. Gondal** , M. A. Suliman, M. A. Dastageer, Gaik-Khuan Chuah, C. Basheer, Dan Yang, A. Suwaiyan, Synthesis of Visible Light Active Mesoporous Ag-WO₃/SBA-15 Nano Composite Catalyst Based on Surface Plasmon Resonance Enhanced Process, 4th Saudi International Nano Conference, Dhahran (25-26th October, 2016).
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258. **M. A. Gondal** (invited talk) Synthesis of Colloidal Nanocrystal Based Nanocomposites Semiconductors for Photonic Applications Using Advanced Pulsed Laser Ablation in Liquids Technique, Seventh International Conference on Optical, Optoelectronic Photonic Materials and Applications 2016, Polytechnique Montreal, Canada.
259. **M. A. Gondal**(invited talk), Disinfection of Contaminated Water by Laser Induced Photo-catalysis Process using Semiconductor Catalysts, National Scientific Conference on “The use of Nanotechnology in Water Treatment” King AbdulAziz City For Science and Technolgy (KACST), Riyadh (17th April, 2016)
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Facile Fabrication of Candle Soot Based Super-Hydrophobic Surface , International Conference on Physics and Chemistries at Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
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436. Niebuhr, F., M. A. Gondal, W. Rohrbeck and W. Urban (1981), LMR observation of the ν_2 -bending mode in the HO₂ radical at 7.17 μm , 15th Symposium on Free Radicals, Paper C-4, Nova Scotia, Canada.
437. Gondal, M. A., N. Ahmad and M.A. Khan (1979) High voltage switching system for pulsed CO₂ laser, Electronics. Vol.1, 369, ed. M. Aslam (PAEC Press, Islamabad).

Leadership in Research Projects (Completed or under Progress)

1. **Principal Investigator, NSTP (National Science and Technology Plan) Project # 15-ADV4907-04** Synthesis of Crystalline Semiconductor Nanostructures using the Pulsed Laser Ablation Technique (march 2016 – april 2018)
2. **Principal Investigator, Internal project # Rg1421-1 & Rg1421-2**, Laser Induced Breakdown Spectrometer for Trace Elemental Analysis of food and cosmetic products (september 2015- Novemeb 2018).
3. **Principal Investigator, NUS-KFUPM Project # NUS 15109** Laser induced photocatalytic removal of organic pollutants from water using nano-structured metal oxides (April 2016-Aug 2021).
4. **Principal Invetsigator, Internal project # IN141024**, Book project entitled: Novel Bismuth Oxyhalide based Materials and their Applications (May 2015-April 2017).
5. **Co- Investigator Internal project # Rg 1405-1 & Rg 1405-2**, Pulsed laser deposited Bismuth telluride Thin films Study for Thermoelectric Applications (March 2015-december 2017).
6. **Principal Invetsigator, # MIT-11109, 11110**(MIT project number: 6926440/6926441), Remediation of Water Produced in Resource Extraction (2012- Aug 2014) joint with MIT.
7. **Principal Invetsigator, # MIT-13104,13105** (MIT project number: 6926440/6926441) (Remediation of Water Produced in Resource Extraction (Sep 2014 - Aug 2017) joint with MIT.
8. **Principal Investigator (TIC -KFUPM) project # CCS-16** funded by KACST Carbon Dioxide Conversion Into Value-Added Hydrocarbons Over Highly Active and Economic Catalysts In Photochemical and/Or Electrochemical Reduction Process Enhanced By Photo-Catalysis (December 2014-March 2018).
9. **Consultant, project NSTIP#12-NANO2317-10**, Synthesis and Characterization of Light-Harvesting Nanomaterials for Renewable Energy and Photocatalysis Toward Clean Water(jan 2105-jan 2017).
10. **Principal Investigator Internal project # Rg1311-1 & Rg1311-2**, Synthesis of nanoalloys and nanocomposites using pulsed laser ablation in liquids (May 2013- Sep 2016).
11. **Distinguished professorship award IN131001 (sep 2013- sep 2016).**

12. **Co- Investigator Internal project # Rg 1221-1 & Rg 1221-2**, Effects of Pulsed Nd:YAG Laser fluence on the Structural properties and Valence States of Transition Metal Ions in Phosphate Glasses (Sep2012-december 2014).
13. **Co- Investigator Internal project # Rg1201-1 & Rg1201-2**, Comparison of Detection Sensitivities of Prompt Gamma-Ray Neutron Activation Analysis and Laser Induced Breakdown Spectroscopy Techniques for Analysis of Toxic Elements Ag, Br, Cd, Cr, Cl, Gd, Hg, Ni and V in Liquid and Solid Samples (Nov,2011-June 2015).
14. **Co-Investigator NSTP (National Science and Technology Plan) Project #10—NAN1387**, Development of highly efficient visible-light-driven mesoporous nanostructured materials for photocatalytic applications (Dec 2012-Feb2014).
15. **Co-Investigator NSTP (National Science and Technology Plan) Project # 10—NAN1386**, Lanthanide-doped Oxide Nanoparticles Multi-modal Molecular Imaging Agents (sept 2011-Feb 2014).
16. **Co-Investigator, NSTP (National Science and Technology Plan) project # No. 10-wat1240-10** , Synthesis of Nano Structured Composites and Their Application in Elimination of Methyl Tertiary Butyl Ether (MTBE) From Water (Sept 2012-Jan 2014).
17. **Co-Investigator, Internal project # Rg 1103-1 & Rg 1103-2** Synthesis and Optical Characterizations of Hybrid Nano-Structures Using Advanced Laser based Techniques (March 2011-April 2014).
18. **Principal Investigator, Internal project # Rg1011-1 & Rg1011-2**, Photo-catalytic conversion of carbon dioxide into methanol using nanocatalysts (Oct 2010- March 2013).
19. **Principal Investigator, SABIC# 090023** Pulsed Laser Ablation for Synthesis of Nanostructured ZnO and ZnO₂ (March 2009-september 2010 , completed).
20. **Principal Investigator, NSTP (National Science and Technology Plan) Project # 08-NAN93-4;** Applications Of Nanoscale Materials (Metal Oxides) Using Laser Induced Photo-Catalytic Process (Sep 2009 – Oct2011).
21. **Co-investigator**, MIT-10110 Design and manufacturing part III (march 2010-2011).
22. **Co-investigator**, MIT-10109 PV water pumping-part IV III (Feb 2012-Feb. 2014).
23. **Principal investigator, Distinguished professorship award, IN100038, (2010-till date) and IN131001.**
24. **Co-Investigator, IN# 101022** Nanocomposite materails co-polymers oragnomodified clay (may 2011-- may 2014).
25. **Co- Investigator NSTP (National Science and Technology Plan) Project # 08-ADV-704**, Advanced bioinert ceramic filter materails with guided macro-micro-nano porous structure manufactured using microwave and laser sintering process.
26. **Co-Investigator, KACST # DRP-4-25** Development of Technologies For Deep Desulfurization of Fuel Oils (May 2010, June 2013)
27. **Principal Investigator, KACST # 28-40**, Disinfection of Contaminated Water by Laser Induced Photocatalysis Process using Semiconductor Catalysts. (Jan 2009- Jan2011).
28. **Principal Investigator, Core Center of Corrosion #CR-1-2010** Development of Laser Induced Breakdown Spectrometer for the Determination of Chloride and Sulfate Concentration in Concrete Structures for Assessment of Reinforcement Corrosion (January 2010- december 2012).
29. **Co-Investigator, FT# 100034** Laser nanomaterials Phenol Detection (may 2011- 2012- January 2012).
30. **Co-Investigator, SABIC# 090020** (March 2009- October 2010) Removal Of Methyl Tertiary Butyl Ether (MTBE) From Water Using Laser Based Photo-Oxidation Process.
31. **Co-Investigator, Internal project # IN080427** Identifying the Causes of Saudi Arabia Low Voltage Cables Outages by Applying Explicit Measures and Laser Induced Breakdown Spectroscopy (LIBS) (January 2009-Novemebr 2010).
32. **Co-Investigator, Internal project # IN090025** (April 2009-april 2012)Laser Approach to Metal Nanoalloys, Its Optimization & Search for Novel Alloy Nanostructures materials .
33. **Principal Investigator, Sabic project # SABIC - 07004** (2007-2009) Laser induced photo-catalytical removal of phenol for waste water treatment .
34. **Co-Investigator, internal project# In-080401** (2008-2011). Development of LIBS spectrometer for various applications (2008-2011).
35. **Principal Investigator, Sabic project # SABIC - 2005/11** Laser Sensor For Detection Of Ozone (started on Oct 2005, ended May 2007).
36. **Principal Investigator, Sabic project # SABIC - 2002/01**

- Photocatalytic Conversion Of Methane into Methanol Using Laser, (duration 18 working months, started on 1.2.2003, ended date: 3.11.2004).
37. **Principal Investigator, Sabic project # 2000/ft-14**
In situ detection of SF₆ leaks in power systems using laser, (duration 18 months, started on 1.12.2000, completed on 31.12.2002).
 38. **Co-Investigator, Sabic project # 2000/SA-12**
Methane cracking for production of higher hydrocarbons and hydrogen using selective laser excitation process, (duration 18 months, started on 1.10.2000, completed on 31.12.2002).
 39. **Co-Investigator,, Sabic project # 2000/SA-11**
Laser photolysis–glow discharge hybrid system for regeneration of ‘coked’ zeolite catalysts, (duration 18 months, started on 1.10.2000; completed on 31.12.2002).
 40. **Principal Investigator, internal project RI PN# 12063**
Development of laser based remote sensors for environmental studies, (duration 24 months, start date on 1.9.2002, ending date 31.10.2005, project on hold since April 2004 due to shortage of manpower).
 41. **Principal Investigator, Client Funded Project# SQ 2419**
Monitoring of Volatile Organic Compounds Pollutants (Total Organic Carbon, Benzene, Styrene and Naphthalene) using electromagnetic radiation absorption and photoacoustic detection technique" at Saudi Petrochemical Complex Yanbu (YANPET). (three months duration, project completed successfully in 1996).
 42. **Principal Investigator, Client Funded Project# SQ 2489**
Monitoring of air pollutants (Total Organic Carbon, NO₂, NO, SO₂ CO₂, CO) in and around the premises of Bitumat plant at Dammam?. (One-month duration, project completed successfully in 1997).
 43. **Principal Investigator, Client Funded Project# SQ 2378**
Calibration of a Radiometer Model RX 1000 using UV radiations generated from frequency doubled YAG pumped dye laser" for Arabian Metal Company, Dammam (project completed successfully in 1996).
 44. **Co-Investigator,, RI Project #12043. (Five years duration, 1992-1997).**
Investigation of Laser Excited Alkaline Earth Metal Atoms".
 45. **Principal Investigator, CAPS Project (1995- to 2005**
Development of an Environmental Research Facility for the atmospheric pollution monitoring, leak detection across pipelines and for the trace gas analysis based on the photoacoustic (PA) techniques using lasers.
 46. **Principal Investigator, CAPS Project (1999-to 2005).**
Development of LIDAR (light detection and ranging) system for remote sensing of environment and leak detection across the oil/gas pipelines.

Invited Talks /Seminars/Presentations

1. Synthesis of Colloidal Nanocrystal Based Nanocomposites Semiconductors for Photonic Applications Using Advanced Pulsed Laser Ablation in Liquids Technique, Seventh International Conference on Optical, Optoelectronic Photonic Materials and Applications, Polytechnique Montreal (13-18 June 2016) Canada.
2. Fabrication of Robust Super-Hydrophobic/hydrophilic Surfaces Using Pressurized Spray Gun and Layer By Layer (LBL) Coatings and their Applications, invited talk, International Conference on Physics and Chemistries at Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
3. Synthesis and Photoluminescence Studies of Quantum Dots For Photonic Applications Using Pulsed Laser Ablation in Liquids, invited talk, 17th Photonics North, Ottawa (9-11th June 2015) Canada.
4. Physics of Self-Cleaning Surfaces (Coatings & Textures) and Their Novel Applications, FSIMFP2015 — Fourth Saudi International Meeting on Frontiers of Physics Jazan, (17-19 Feb 2015).
5. An Overview of Dye Sensitized Solar Cells and their Energy Harvesting Applications, 3rd International Conference on Nanotechnology/ Nanophotonics , King Abdullah City for science and Technology, Riyadh (1st -3rd December, 2014).
6. Recent trends in waste water treatment using nano materials and advanced oxidation process with laser and solar radiations, Mechanical Engineering Department, MIT Cambridge USA (June 14,2013).
7. Fabrication of hydrophobic surfaces (films and textures) using pressurized spray gun and their novel applications, Physics Department, KFUPM (24th February, 2013).
8. Synthesis of Nano Alloys and Nano Composites Using Pulsed Laser Ablation in Liquids, Physics Department, KFUPM (11th November, 2012).

9. Synthesis of nano-engineered materials and fabrication of hydrophobic and hydrophilic surfaces (textures) for waste water treatment, Mechanical Engineering Department, KFUPM (13th November, 2012).
10. Latest Developments in Cancer Treatment using Photodynamic Therapy in Conjunction with Photocatalysis Process and Novel Nano Engineered Materials under Laser Irradiation, Physics Department, KFUPM (19th February, 2012).
11. Laser Induced Photo-Catalysis and its Application in Waste Water Treatment, Center of catalysis, King Abdullah University of Science and Technology (KAUST) Saudi Arabia (7th June 2011).
12. Characterization of Nano Materials Using Laser Induced Breakdown Spectroscopy, National Center for Physics (NCP), Islamabad Pakistan (July 21, 2011).
13. Treatment of Malignant Tumors using Novel Nano Engineered Photocatalysts and Laser Radiations, Research Institute, King Faisal Specialist Hospital, Riyadh (Nov 9, 2011).
14. Laser induced photocatalysis for production high value hydrocarbons and hydrogen, National Center for Physics (NCP), Islamabad Pakistan (July 25, 2011).
15. Advanced technologies for Waste water treatment, Institute of Environmental Sciences and Engineering (IESE), National University of Science and Technology (NUST), Islamabad (July 27, 2011).
16. Cancer treatment using Photodynamic therapy supplemented by photo-catalysis process, Pakistan Institute of Engineering & Applied Sciences (PIEAS) Islamabad (29 July, 2011).
17. New Technologies for Waste Water Treatment using Nano Structured Materials and Laser, Physics Department, KFUPM (17th April, 2011).
18. Laser Applications in Nanotechnology, Environmental Monitoring and Material Characterization, Institute of Engineers, Student Chapter, KFUPM, (25th May, 2011).
19. **Invited Speaker**, “36th International Nathiagali Summer College (INSC), on **Photovoltaic’s**” (4-8th July, 2011) Pakistan.
20. **Invited Speaker**, Growth of Oxide nanoparticles using Pulsed Laser Ablation (PLA) Technique, International Conference on Oxide-based Materials and Devices II, (Conference OE108, OPTO SPIE West), Photonic West, The Moscone Center, San Francisco, California United States 22 - 27 January 2011.
21. **Key Note Speaker**, International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain (October 25-27, 2010).
22. Assessment of Reinforcement Corrosion Using Laser Induced Breakdown Spectroscopy, technical dinner meeting Saudi Engineering Council, Al-khobar (21st May, 2011).
23. Laser Research Activities at KFUPM, Physics Department, KFUPM (27th April, 2010), Dhahran
24. Laser Induced Photocatalysis for Removal of Sulphate Reducing Bacteria, Saudi Aramco (8th June, 2010).
25. Laser Induced Breakdown Spectroscopy and its applications, Laser Group, Institute of Chemical Process Fundamental, Czech Academy of Sciences, Prague, Czech Republic (22.11.2010)
26. Synthesis of nanostructured metal oxides like ZnO using pulsed laser ablation in liquids Laser Group, Institute of Chemical Process Fundamental, Czech Academy of Sciences, Prague, Czech Republic (23.11.2010).
27. **Key Note Speaker**, International Conference and Exhibition Laboratory Technology, 2009 Kuwait, November 4-5, 2009.
28. **Key Note Speaker**, workshop on Laser Applications in Chemical Analysis and Oil Industry (27-28 April, 2008) Khartoum, Sudan.
29. **Distinguished Invited Speaker**, Laser Conference organized by World Academy for Laser Applications (WALA) Bahrain International Exhibition Centre. October 19-21, 2009.
30. **Invited Speaker**, the 4th International Symposium on Non-Crystalline Solids and The 8th Brazilian Symposium on Glass and Related Materials, Aracaju, SE, Brazil (Oct 19-26, 2007).
31. **Key Note Speaker**, 9th Symposium on analytical and environmental Chemistry, Baragali, Pakistan (July 24-26, 2006).
32. Invited Talk, Fundamentals of Laser Induced Breakdown Spectroscopy, Women Degree College, King Faisal University, Dammam, January 25, 2009.
33. How to Improve Research and Development Program at University Level, Physics Department, March 16, 2008.
34. Laser based analytical techniques for various applications, Chemistry Department, ARARAQUARA, SP. **Brazil**, Oct 17, 2007.
35. Elemental analysis using Laser Induced Breakdown Spectroscopy, Chemistry Department, KFUPM, Nov 4, 2007.
36. Laser based sensors and their application, Physics Department, KFUPM, Nov, 2006.

37. Laser induced Breakdown Spectroscopy and its Applications in Environment, Geology, Petroleum, Steel and Mining industries, Phys Deptt, King Abdul Aziz University **Jeddah**, 29.3.2006.
38. Effect of industrial pollution on environment and advanced optical techniques, Earth Science Department, KFUPM, 20 December, 2005.
39. Lecture Series on pollution (solid, liquid and gas) Monitoring using lasers , Institute of Environmental Sciences and Engineering, National University of Sciences and Technology., Rawalpindi, **Pakistan**, 7-11 November, 2005.
40. Laser application in environmental Sciences, Physics department, KFUPM, 24.September, 2005
41. LIDAR Monitoring Of Aerosols For Prediction Of Boundary Layer Heights, Phys Department, King Saud University, **Riyadh**, 7th June 2005.
42. Environmental issues and need for advanced (laser based) air monitoring techniques, Mechanical Eng. Deptt, KFUPM, 30th March 2004.
43. Global warming and its effects on humans, forest and climate, American Chemical Society Meeting, Gulf Meridian, **Alkhobar**, September 2004
44. Laser based photoacoustic spectrometry and its applications, Phys Deptt, KFUPM, 28th March, 2004.
45. Laser-induced Desulfurization of Oil and other aromatic compounds, Saudi Aramco January, 2004 & June 2005.
46. Laser production of high value hydrocarbons and high value organic products from petrol residue, Saudi Aramco, March 2003.
47. Methane Cracking for the production of higher hydrocarbons on 28 April 2003 at the LRS, CAPS, RI, KFUPM.
48. Detection of SF₆ leaks in power systems using laser on 12 May 2003 at the LRS, CAPS, KFUPM.
49. Photoacoustic Spectroscopy for Trace Gas Analysis and Gas Leak Detection, Physics Department, Free University Berlin, **Germany**, 17.7.2002.
50. Lasers and their applications in every day life, Electrical Engineering Department, King Abdul Aziz University, **Jeddah**, Saudi-Arabia, 24.10. 2001.
51. Laser remote sensing and its applications in environment, agriculture and metrology, Air and Waste Management Association USA (Saudi-Section) Dhahran International Hotel, 23.1.2001.
52. Laser sensors applications in agriculture, oil and industrial pollution Joint seminar R.I and Mechanical Engineering Department, KFUPM, 3.10 2000.
53. Light detection and ranging (LIDAR) system, Institute of Applied Physics, University of Bonn, **Germany**, 19.7.2000.
54. Photoacoustic sensor for insitu detection of leaks in power systems, to the technical experts from SCECO Central, Riyadh and SCECO West, **Jeddah** on 17.10 2000.
55. Development of remote laser based sensors for environmental applications, center for Applied Physical Sciences, R.I, KFUPM, 15.2. 1999.
56. Applications of laser sensors for atmospheric studies, Applied Physics Deptt, Victoria University, Melbourne, **Australia**, 8.8.1997
57. Laser Remote Sensing and its Applications, Joint seminar R.I and Physics Department, KFUPM, 4.5 1997
58. Laser Applications in Medicine, King Fahd Teaching Hospital, **Alkhobar**, Saudi-Arabia. 25. 6. 96.
59. Oil and Gas Exploration using Laser Remote Sensors”, Saudi-Aramco, Dhahran, Saudi-Arabia, 30. 6. 96
60. Multi-step Excitation of Autionizing States and Role of Collisions in Ca-vapor”, Center for Laser and Applications, Macquire University, Sydney, **Australia**, 21. 2. 96
61. Collisional energy transfer of laser excited metastable Ca atoms and excitation of ionic states of calcium, Physics Department, University of Kaiserslautern, **Germany** (8.8.1995).
62. Large scale collisional energy transfer in optically prepared atomic states of calcium, Institute of Applied Physics, University of Bonn, **Germany** (28.7.1995).
63. Collisional excitation of 4p 2p states of Ca II in resonant excitation of CaI states, Institute of Physical chemistry, University of Heidelberg, Germany (24.8.1995).
64. Energy transfer in laser pumped calcium vapor, International Center for Theoretical Physics (ICTP), Trieste, **Italy** (21.7.1995).
65. Environmental applications of lasers", Division-II, R.I. Seminar was presented to experts from National Environmental Preservations Co. (BeeA'h). (31.10.1994).
66. Laser induced fluorescence studies of agricultural plants using lasers", Division-III, R.I., KFUPM (25.1.1994).
67. Laser remote sensing of leaks in gas pipelines, Division-II, R.I., KFUPM (30.11.1993).

68. Study of diffuse bands in alkali dimers", Division-II, R.I., KFUPM (28.1.1992).
69. Diode laser and its applications", Division-II (Proposal Seminar at Managerial Level) (February 1993).
70. Single photon excitation studies of new diffuse bands in Na₂ and Li₂ dimers using 351nm (XeF) and 337 nm (N₂) excimer laser, International Center for Theoretical Physics(ICTP), Trieste, **Italy** (18.6.90).

Proposals, Technical Discussion Papers and Reports

1. Development of Improved Dye Sensitized Solar Cells with Nanosturctured Pure, Doped and Composite Semiconducting Materials submitted to NSTIP(2014).
2. Synthesis of Crystalline Semiconductor Nanostructures using Pulsed Laser Ablation Technique, submitted to NSTIP 9th cycle(2013).
3. Carbon Dioxide Conversion Into Value-Added Hydrocarbons Over Highly Active and Economic Catalysts In Photochemical And/Or Electrochemical Reduction Process Enhanced By Photo-Catalysis Trilateral joint proposal with KAIST-ARAMCO-KFUPM (2012).
4. Laser induced photocatalytic removal of organic pollutants from water using nano structured metal oxides, Joint proposal with National University Singapore & KFUPM (2012)
5. Comparison of Detection Sensitivities of Prompt Gamma-Ray Neutron Activation Analysis and Laser Induced Breakdown Spectroscopy Techniques for Analysis of Toxic Elements Ag, Br, Cd, Cr, Cl, Gd, Hg, Ni and V in Liquid and Solid Samples submitted to DSR, KFUPM (2012).
6. Development of highly efficient visible-light-driven mesoporous nanostructured materials for photocatalytic applications, submitted to NSTIP (2013)
7. Lanthanide-doped Oxide Nanoparticles Multi-modal Molecular Imaging Agents submitetd to NSTIP (2011).
8. Synthesis of Nano Structured Composites and Their Application in Elimination of Methyl Tertiary Butyl Ether (MTBE) From Water, submitetd to NSTIP(2011).
9. Synthesis and Optical Characterizations of Hybrid Nano-Structures Using Advanced Laser based Techniques, submitted to DSR, KFUPM(2011).
10. Photo-catalytic conversion of carbon dioxide into methanol using nanocatalysts submitted to DSR, KFUPM (2010).
11. M. A. Gondal, M. A. Ali, and M.A.Dastager (Feb, 2012), CO₂ Conversion into Hydrocarbons using Nano-Structured multi-metallic Catalysts, submitted under 6th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
12. M. A. Gondal, M. A. Ali, and M.A.Dastager (2011), Synthesis of n- and f-doped TiO₂ photo-catalyst for hydrogen production under visible light irradiation, submitted under 5th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
13. A. A. Isab, M.A. Gondal, M. I. Wazeer, S.Altuwaijri(2011), Comparative study of self synthesized nano structured and micro structured gold complexes as anticancer agents, submitted under 5th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
14. M.H. masoudi, M.A. Gondal, J.Pola (2011), Laser gas-phase deposition of unique Ge/C and Te/C nanocomposites, submitted under 5th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
15. M.A. Gondal, M.A. Ali, Z.H. Yamani and M.A.Dastager (2011), Synthesis of nano-structured metal oxides films using Pulsed Laser Deposition Technique for various applications in waste water treatment and CO₂ conversion into chemicals, submitted under 4th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
16. A.J. Alzharani, M. Akram, M. A Gondal and N. Aqeeli (2009) Applications of Nano-Particulated Amphotericin-B, Fluconazole and thymoquinone Candida Albicans and Candida Biofilm, submitted to KACST.
17. M. H. Shwehdi, M. A. Gondal A. Mashat M. Hashem T. R. Sheltami E. Williams, Lidar-Tracking and Electrification of Dust-Lofting Gust Fronts in Saudi Arabia submitted to National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh .
18. M. A. Gondal N. Aqeeli, , Z.H.Yamani (KFUPM) and team form MIT (2009), Waste Water Treatment by Using Novel Materials (Nanophoto-Catalysts) and Lasers, submitted to Center of Excellence MIT and KFUPM Collaboration.

19. M.N. Siddiqui, K. Hooshani and M.A. Gondal (2009) Development of Technologies For Deep Desulfurization of Fuel Oils, submitted to KACST.
20. Z. Seddigi, M.A. Gondal, A. Baqabas and S. Fadal (2009) Removal of organic pollutants from water using Heterogenous photocatalysis Technique submitted to KACST.
21. M.A. Gondal, Z.H. Yamani (2008) Pulsed Laser Ablation for Synthesis of Nanostructured ZnO and ZnO₂ submitted to University Research Committee, KFUPM.
22. M.N. Siddiqui and M.A. Gondal (2008) Removal Of Methyl Tertiary Butyl Ether (MTBE) From Water Using Laser Based Photo-Oxidation Process, submitted to University Research Committee, KFUPM.
23. M.A. Gondal, Z.H. Yamani, Z. Ahmad, T. Louai, N. Siddiqui, S. Al-Quraishi (2008) Applications of Nanoscale Materials Using Laser Induced Photo-Catalytic Process: (Purification Of Air & Water, Corrosion Inhibition) submitted to KACST and Center of Excellence and Technology
24. M.H. Shwehdi and M. A. Gondal, Proposal # IP 2008/35 entitled: Identifying the Causes of Saudi Arabia Low Voltage Cables Outages by Applying Explicit Measures and Laser Induced Breakdown Spectroscopy (LIBS) to DSR
25. M.A. Gondal, Z.H. Yamani, A. Khaleel (2008) Disinfection of Contaminated Water by Laser Induced Photo-catalysis Process using Semiconductor Catalysts, submitted to KACST (approved).
26. M.A. Gondal, Z.H. Yamani, N.Siddiqui and J. Pola (2007) Decomposition Technology For Low Concentration Nitrous Oxide using Lasers, Nine Sigma, USA.
27. Al-Jalal, M. A. Gondal, E. Heghazi, Khan, et al (2007), Establishment of Center of excellence for lasers and their applications submitted to Ministry of Higher Education Riyadh.
28. H.M. Masoudi, M. A. Gondal, E. Heghazi, J. Pola and M. A. Alodan (2006) Laser Approach to Metal Nanoalloys, Its Optimization & Search for Novel Alloy Nanostructures materials submitted to KACST and University Research Committee
29. Z. H. Yamani and M. A. Gondal (2006) Development of laser induced breakdown spectrometer for trace element analysis, Proposal submitted to URC for Internal funded project.
30. M. A. Gondal, Z. H. Yamani, Al_Arfaj, M. Nazeer (2006), Laser induced photocatalytic degeradation of phenol using semiconductor catalysts, submitted to URC for SABIC grants.
31. S. M. Fortia, A. J. Al- Saati, **M.A. Gondal** and M. Schwehdi, Investigation of Noise and Air Pollution Effect on Urban Developments in Saudi Arabia, submitted to KACST(2004)
32. M. A. Gondal, Z. H. Yamani (2004), Laser Sensor for Detection of Ozone, submitted to URC for SABIC grants.
33. M. A. Gondal, Al_Arfaj, Z. H. Yamani, A. Mubarik and Dastageer (2004), Laser desulfurization of crude oil, Proposal# Caps 2229, Saudi Aramco (1.83 millions Riyal)
34. M. A. Gondal, Al_Arfaj, Z. H. Yamani and A. Hameed (2003), Laser induced conversion of CH₄ into high value hydrocarbons using photolysis and photo-catalysis processes, Proposal # AT-23-17 submitted to KACST for General Research Grants.
35. M. A. Gondal, Al_Arfaj, Z.H. Yamani, A.Mubarik and A. Hameed (2002) Photocatalytic Conversion Of Methane into Methanol Using Laser, Proposal # Sabic 2002/01 submitted to URC for SABIC Grant (accepted and project has started on 16.12.2002 and completed 30.6.2005).
36. Gondal, M. A., M. Schwehdi, A. Baig (2000), In situ detection of SF₆ leaks in power systems using laser, Proposal# 55 submitted to URC for SABIC Grant (accepted and project has started on 1.10.2000 and will end by 31.8.2002)
37. Al_Arfaj, M.A. Gondal, Z.H. Yamani and A. Ali (2000), Methane cracking for production of higher hydrocarbons and hydrogen using selective laser excitation process, Proposal # 50 submitted to URC for SABIC Grant (accepted and project has started on 1.10.2000)
38. M.A. Khan, M. A. Gondal, M. S. Hussain and A. Baig (2000), Laser photolysis–glow discharge hybrid system for regeneration of ‘coked’ zeolite catalysts, Proposal# 58 submitted to URC for SABIC Grant (accepted and project has started on 1.10.2000).
39. Gondal, M. A., F. F. Al-Adel, S.M.A. Durrani and I. A. Bakhatiari (1998), Development of laser based remote sensors for environmental studies, Proposal # PN12063 submitted as internal project to RI (accepted and project start date 1. 9.2000).
40. Gondal, M. A., M. H. Masoudi, S.M.A. Durrani and I. A. Bakhatiari (1998), Laser remote monitoring of industrial pollution; Proposal # 32069 submitted as external project to KACST (project not approved and encouraged to resubmit).
41. Gondal, M. A., Al-Arfaj, S.M.A. Durrani and I. A. Bakhatiari (1998),

42. Remote analysis of environmental trace elements in soil and aqueous solutions using laser induced breakdown spectroscopy (LIBS), Proposal # ms-4-17, submitted to KACST.
43. Khan, M.A., Gondal, M. A. , S. Al-Kabi, Y. Nassar, A.K. Azad, A. Baig (1998),
44. Laser-based techniques for non-contact inspection of concrete, Proposal # 32067 submitted as external project to KACST.
45. M.A. Gondal (1995). Photoacoustic trace gas analysis using CO₂ and Nd: YAG laser, Proposal # WS412 PR, Deutsche Akademisch Austausch Dienst, Bonn, Germany (project approved and was financed for one month visit to Germany).
46. Khan, M.A., Gondal, M. A. and M.H. Rais. (1991). Investigation of some laser-excited alkaline earth metal atoms. Proposal # 12043, RI, KFUPM
47. M. A. Gondal, Laser production of high value hydrocarbons and high value organic products from petrol residue; Technical Discussion Paper # TM/CAPS/01/03 submitted to Saudi-Aramco.
48. M. A. Gondal, Laser Desulfurization Of Crude Oil; Technical Discussion Paper # TM/CAPS/02/03 submitted to Saudi-Aramco.
49. M.A. Gondal, R. A. Nassar, Development of novel method for removal of sulfate reducing bacteria (srb) and control of norm Technical Discussion Paper # TM/CAPS/01/04 submitted to Environmental Section, Saudi-Aramco.
50. M. A. Gondal, Photocatalytic conversion of methane, Technical discussion paper # TM/CAPS/09/01 submitted to SABIC and Saudi-Aramco.
51. M. A. Gondal, Methane Cracking for production of higher hydrocarbons and hydrogen using selective laser excitation process. Technical discussion paper # TM/CAPS/02/00 submitted to Saudi-Aramco, SABIC, Petrochemica.
52. M. A. Gondal ,In situ detection of SF₆ leaks in power systems using laser. Technical discussion paper # TM/CAPS /01/00 submitted to Saudi-Aramco, SABIC, SCECO East, SCECO West and SCECO Central
53. M. A. Gondal, Laser remote monitoring of industrial pollutants and atmospheric gases. Technical discussion paper # TM/CAPS/03/00) submitted to different companies such as Saudi-Aramco, SABIC, SCECO, MEPA, Petrochemica, National Environmental Preservation Company (BeeA'h).
54. M. A. Gondal, Al_Arfaj, Z.H. Yamani, A.Mubarik and A. Hammed (2004) Two semi-annual and Final Reports of project #SABIC 2002/01 Photocatalytic Conversion Of Methane into Methanol Using Laser, submitted to URC for SABIC .
55. Gondal, M. A., M. Schwehdi, A. Baig (2002), Final & two semi-annual Reports of project #FT 2000/14, In situ detection of SF₆ leaks in power systems using laser, Proposal# 55 submitted to URC for SABIC
56. Al_Arfaj, M.A. Gondal, Z.H. Yamani and A. Ali (2002), Final & two semi-annual Reports of project #SABIC 2000/12 Methane cracking for production of higher hydrocarbons and hydrogen using selective laser excitation process, submitted to URC for SABIC
57. M.A. Khan, M. A. Gondal, M. S. Hussain and A. Baig (2002), Final & two semi-annual Reports of project #SABIC 2000/11 Laser photolysis–glow discharge hybrid system for regeneration of ‘coked’ zeolite catalysts, submitted to URC for SABIC Grant
58. Gondal, M. A., Aftab Ahmad (1997). Final Report: Project # SQ 2489, Detection of air pollutants at Bitumat plant, Dammam
59. Gondal, M. A., Aftab Ahmad (1996). Final Report: Project# SQ 2419 Monitoring of toxic volatile organic compounds at Yanbu Petrochemical Complex (YanPet) under SABIC.
60. Gondal, M. A. and E. Heghazi (1996). Final Report: Project #SQ 2378 , "Calibration of a Radiometer Model RX 1000 using UV radiations generated from frequency doubled YAG pumped dye laser"
61. M.A. Gondal (1995). Final Report on Photoacoustic trace gas analysis using CO₂ and Nd: YAG laser, WS412 PR, Deutsche Akademisch Austausch Dienst, Bonn, Germany (project approved and was financed for one month visit to Germany)
62. Khan, M.A., Gondal, M. A. and M.H. Rais. (1995). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #5, Project No. 12043, RI, KFUPM.
63. Khan, M.A., Gondal, M. A. and M.H. Rais. (1994). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #4, Project No. 12043, RI, KFUPM.
64. Khan, M.A., Gondal, M. A. and M.H. Rais. (1994). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #3, Project No. 12043, RI, KFUPM.
65. Khan, M.A., Gondal, M. A. and M.H. Rais. (1993). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #2, Project No. 12043, RI, KFUPM.

66. Khan, M.A., Gondal, M. A. and M.H. Rais. (1993). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #1, Project No. 12043, RI, KFUPM.
67. M.A. Gondal, A. Majeed and M. Tahir. (1991). Theoretical and experimental aspects of Nd: YAG laser. Final Report LS-IR-5. Post Graduate Center for Electro-Optics, Tripoli.
68. M.A. Gondal, S. Shahdin and J. Shebani. (1986). Development of new lasing media for CO₂ laser based on electrochemical transformation (ECTO) of organic compounds. Final Report LS-IR-3. Post Graduate Center for Electro-Optics, Tripoli.
69. Shahdin, S. and Gondal, M. A. . (1985). Development and operation of heat pipes for generation of vapors up to 900°C. Final Report LS-IR-1. Post Graduate Center for Electro-Optics, Tripoli.
70. Shahdin, S., Gondal, M. A. and F.M. Mansouri. (1985). Development of software for calibration and analysis of spectra using an optical multichannel analyzer. Final Report LS-IR-2. Post Graduate Center for Electro-Optics, Tripoli.

Short Courses/workshops Offered

- Practical Considerations for Insulation and Cables Materials and their Characterization Using Laser induced breakdown spectroscopy (LIBS) Techniques, KFUPM (July, 5- 9, 2008).
- Assessment and Repair of Reinforced Concrete Structures: Principles and Applications, Laser Sensor, KFUPM. (May 10-14, 2008, 2009,2010,2012)
- Lasers and their applications held at LRS (2001), CAPS, KFUPM.
The course covered the basic principles of lasers, types of lasers, operation & routine maintenance of lasers, laser safety, as well as many applications in engineering, industry, environment, medicine and agriculture (November 27 – 01st December 1999)
- Recent advancements in air pollution monitoring & control held at Institute of Environmental Sciences and Engineering, National University of Sciences and Technology (NUST), Rawalpindi, Pakistan. The course covered the important issues concerning global warming, ozone depletion, acid rain, photochemical smog, forest decline and state of the art advanced techniques for air pollution monitoring such as LIDAR, Photoacoustic spectroscopy, Laser Induced Breakdown Spectroscopy(LIBS) and their applications as well as the latest techniques for control of air pollution at industrial complexes. (September 8-9, 2003 (delivered five lectures).
- Workshop on environmental issues and air monitoring techniques, Institute of Environmental Sciences and Engineering, National University of Sciences and Technology (NUST), Rawalpindi, Pakistan (January 7-9, 2003).
- Work shop on awareness of environmental(water, air) problems in Pakistan, Global environmental problems, green house effect, ozone depletion and acid rain formation, toxic air pollutants and their safe permissible limits and laser based techniques developed at KFUPM (Total six lectures + videos), National Engineering and Science Commission (NESCOM) Islamabad, Pakistan (23.8.2006).

Postdoc Supervision

- Synthesis of nano structured materials and their applications in waste water treatment using laser induced photocatalysis process, Dr. Qamar (2008-2010).
- CO₂ conversion into methanol using laser induced photocatalysis, Dr. K. Hayat (2010-2011).
- Remediation of Water Produced in Resource Extraction, Dr. U. Baig(2014-2016)

Ph.D. Thesis Supervision

S. No.	Student Name and Department	Thesis Title	Start Date	End Date	Role	Papers Published
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1.	Talal F Qahtan Physics Dept, KFUPM	Synthesis of wetting and non wetting surfaces for oil water separation	2014	Under progress	Advisor	2
2.	M. Taureed Physics Dept, KFUPM	Theoeretical aspects of Calibration free LIBS	2016	Under progress	Advisor	1
3.	M.Naseer, ME Deptt, KFUPM	Multi Criteria Design Optimization and Control of Community Scale Photo Voltaic Reverse Osmosis Water Desalination System	2012	Decemeber, 2014	Thesis Committee Member	3
4	S.S.Al-Jaroudi, Chemistry Deptt, KFUPM	Syntheisi, characterization and evaluation of Anticancer Activities of some gold complexes with Diamine Phosphine and Dithiocarbamate Ligands	2012	2014	Thesis Committee Member	3
4.	Noura Suleman, Physics Dept, College of Science, King Faisal University , Dammam, Saudi Arabia	Simulation Study of Laser Induced Fluorescence Spectra of Diatomic Molecules	2008	2011	Advisor	5
5.	Tawfik Abdo Saleh Chemistry Department, KFUPM	Synthesis of carbon nanotube based composites and thier applications	2010	2012	Co advisor	7
6.	S. Ghadeer Physics Dept, College of Science, King Faisal University , Dammam, Saudi Arabia	Theoretical and experimental aspects of laser induced breakdown spectroscopy	2008	2011	Advisor	2
7.	Mohammed Mahdi KFUPM and Natural Science Departments, Riyadh College of Dentistry and Pharmacy P.O. Box	Plasma Diagnostics using LIBS and its Applications in environmental samples analysis	2008	2011	Advisor	7

	321815 Riyadh 11343, Saudi Arabia					
8.	Khizar Hayat Chemistry Department, KFUPM	Synthesis of nano structure materials and applications in laser induced photo-catalysis	2008	2011	Co- Advisor	7
9.	M. Atif Chemistry Department, KFUPM	Synthesis of new binuclear Cu I mixed legend dye amine phosphine complexes and their applications	2007	2010	Committee Member	2
10.	T. Hussian KFUPM and National University of science and Technology (NUST) Rawalpindi Pakistan	Trace elemental analysis using Laser induced breakdown spectroscopy for liquids and solid waste samples	2006	2008	Advisor	12
11.	A. Hameed Chemistry Department, KFUPM	Applications of Photo- catalysis in conversion of methane into methanol using laser	2003	2005	Co- Advisor	11
12.	Biswanath Mitra Applied Physics, Victoria University, Melbourne Australia	Remote detection of laser generated ultrasonic by fiber optic Interferometer	1996	1999	External Examiner	3

M.S. Thesis Supervision

S. No.	Student Name and Department	Thesis Title	Start Date	End Date	Role	Papers Published
1	I.K. Poppola, Phys KFUPM	Design and fabrication of Perouskite solar cells	2016	-	Advisor	Just started
2	Abu Lais, Phys KFUPM	Adavanced materaisl for carbon dioxide reduction into high value products	2016	-	Advisor	Just started
3	Mohsin Sarwar, Phys KFUPM	Detction of heavy metals in human tissues using Laser induced breakdown spectroscopy	2016	-	Advisor	1
4	REDHWAN ABDO MOQBEL	Syntheis and characterization of GaAs and	2016	-	Advisor	Just started

	Phys KFUPM	other semiconducting materials using PLAL technique				
5	M. ALTAHIR SULIMAN, Chem. KFUPM	Facile synthesis of metal oxide nanocrystals for removal of pesticides and herbicides from water	2015	-	Co-advisor	1
6	Abduliken Bake	Fabrication of dust repellent surfaces and their characterization	2016	-	Co-advisor	-
7	Adesida Kollopu, Chem. KFUPM	Synthesis and characterization of graphitic carbon nitride (g-C ₃ N ₄) based nanostructured composites removal of organic pollutants from water	2014	2015	Advisor	2
8	Y.Habibullah, Phys KFUPM	Laser induced breakdown spectroscopy applications for analysis of food products	2014	2016	Advisor	6
9	A.M.Ilyas, Phys KFUPM	Dye sensitized solar cells using self synthesized nano semiconductor materials	2014	2015	Advisor	2
10	F. Tasnim, Phys KFUPM	Synthesis and characterization of unique nanomaterials using pulsed laser ablation in liquids	2014	2015	Advisor	2
11	L.Oloore, Phys, KFUPM	Synthesis of nanocatalysts for CO ₂ conversion into high value hydrocarbons like methanol	2015	2015	Advisor	4
12	Yasin Maganda, Physics Department KFUPM	Analysis of cosmetic products using self developed time resolved ICCDLaser induced breakdown spectrometer	2013	2013	Advisor	5
13	Talal Al-Qahtan, Physics Department KFUPM	Synthesis of nano alloys using pulsed laser ablation of organometallics	2013	2013	Advisor	7
14	Sadullah Subki, Physics Department KFUPM	Synthesis of hydrophobic and hydrophilic surfaces using spray gun	2014	2013	Advisor	2
15	A.J. Al-Nehmi, Civil Engineering Department KFUPM	Assessment of Chloride and Sulfate Concentration in Concrete Using Laser-Induced Breakdown Spectroscopy (LIBS)	2010	2012	Co-Advisor	5
16	Ahmed Waseem Viqas, EE Department KFUPM	Plasmon-enhanced white light generation in phosphor based GaN LEDs	2014	2013	Committee Member	2
17	S.S. Rashid, EE Department KFUPM	Active plasmonic: surface modulation	2013	2011	Committee Member	2
18	A. M. H.Y. Hendi, Physics Department KFUPM	Synthesis and characterization of Bi ₂ O ₃ nano-powder produced by	2012	2012	Committee Member	2

		microwave-assisted combustion method				
19	T. Al-Ali, Physics Department, King Abdul Aziz University, Jeddah,	Laser induced breakdown spectroscopy studies of plastic waste samples	2011	2012	Reviewer and External Examiner	1
20	K. Drmoosh, Physics Department KFUPM	Synthesis of nano structure metal oxides using laser ablation process	2008	2010	Advisor	8
21	Mr. A. Al-Aswad, Physics Department KFUPM	Fabrication of heat mirrors using electron beam evaporation method	2007	2008	Committee Member	2
22	Mr. M.N. Sayeed, Chemistry Department, KFUPM	Laser induced phenol degradation using semiconductor catalysts	2006	2007	Advisor	5
23	Mr. Rizwan Qureshi, Physics Department KFUPM	Study of Energy Transfer in Highly Excited States of Ca through Thermal Collisions with Ar	1995	1996	Committee Member	5
24	J. M. Mohammed Al-Maraschi, Department of Physics and Astronomy, King Saud University Riyadh	Generation of Discretely tunable lasers from some gases and liquids using stimulated Raman scattering(SRS)	2005	2006	Reviewer and External examiner	-
25	Ali Mohammad Alshehri, Department of Physics and Astronomy, King Saud University Riyadh	Quantitative elemental determination of industrial alloys by Laser Induced Breakdown Spectroscopy (LIBS)	2005	2006	Reviewer and External examiner	-
26	Reem Al-Tuwirqi, Physics Department, King Abdul Aziz University, Jeddah	Spectroscopic Analysis of Some Diatomic Molecules	1995	1996	Reviewer and External examiner	5
27	Ibrahim A. Al-Hadhoud i. Physics Department, King Abdul Aziz University, Jeddah	Comparative study of empirical internuclear Potential Functions of some diatomic molecules	1996	1997	Reviewer and External examiner	-
28	Nourh Ahmed Al-Sinay. Physics Department, King Abdul Aziz University, Jeddah	Calculations of Potential Energy Curves of Diatomic Molecules	1997	1998	Reviewer and External examiner	-
29	Ensaf Awda Al-Jaraddah, Physics Department, King Abdul Aziz University, Jeddah	Analysis and simulation of diatomic molecular spectra	2001	2002	Reviewer and External examiner	-
30	Amany Ali Al-Suraihi, Physics	Comparative study of five parameter potential energy	2001	2002	Reviewer and External	-

	Department, King Abdul Aziz University, Jeddah	functions of diatomic molecules			examiner	
31	Mohammed Tawati, Electrical engineering Department, AL-Fateh University Tripoli, Libya	Experimental and Theoretical Studies of N ₂ Laser	1990	1991	Advisor	-
32	Jamal Shebani Eelctrical engineering Department, AL-Fateh University Tripoli, Libya, April 1991	Small Signal Gain Measurements in a locally developed CO ₂ Oscillator/Amplifier System	1989	1991	Co-Advisor	-

Senior and Capston Projects Supervision

S. No.	Title of Project	No of Students	Role	Semester
1	Fabrication and their UVdegradation of Crumb Rubber Coatings of Hydrophobic nature	2	Co-Advisor with Dr. M. Al-Aqeeli	151
2	Synthesis of Nano ZnO particles for light emmitting diodes	4	Co-Advisor with Dr. M. Al-Sunaidi	Term 151/152
3	Design and Fabrication of Solar waste water treatment Unit Using Parabolic Collector (ME412)	3	Co-Advisor with Dr. A.K. Sheikh	Term 121/122
4	Design and Fabrication of Solar Water Disinfection Units Using Parabolic Collector (ME412)	3	Co-Advisor with Dr. A.K. Sheikh	Term 112
5	Design and Fabrication of Solar Water Disinfection Units Using Flat Plate Collectors (ME412)	3	Co-Advisor with Dr. A.K. Sheikh	Term 112
6	Design, and Fabrication, of a UV Water Treatment Solar Collect , ME411/ME412 - Senior Design Project II	3	Co-Advisor with Dr. A.K. Sheikh	Term 101 and Term 102
7	Laser induced Photocatalytic removal of phenol using ZnO, Course # Chem 409	1	Co-Advisor with Dr. N. Siddiqui	Term 092
8	Desulfurization of crude oil using laser induced phtooxidative process, Course # Chem 409	1	Co-Advisor with Dr. N. Siddiqui	Term 082
9	Quality Assessment of High Tension Electrical Cables using LIBS” Group of four senior students form EE department, EE 411	4	Co-Advisor with Dr. M.H. Shwehdi	Term 082
10	Simulation study for quality Assessment of High Tension Electrical Cables under high temperature and humidity, EE 411	4	Co-Advisor with Dr. M.H. Shwehdi	Term 082
11	Laser induced photo-catalysis for waste water treatment using TiO semiconductor catalyst, ME 411	4	Co-Advisor with Dr. Zaki. Ahmed	Term 071
12	Laser induced photo-catalysis for waste water treatment using TiO semiconductor catalyst, ME 411	4	Co-Advisor with Dr. Zaki. Ahmed	Term 071

13	Laser induced photo-catalysis for waste water treatment using TiO semiconductor catalyst, ME 412	4	Co-Advisor with Dr. Zaki. Ahmed	Term 081
14	Development of a novel setup for laser triggered high voltage electrical discharges using pulsed laser, EE 411	4	Co-Advisor with Dr. M.H. Shwehdi	Term 052
15	Laser Treatment of HVOF coated Inconel 625, ME 411	3	Co-Advisor with Dr. B.S. Yilbas	Term 042
16	Two Summer Training of Saudi Master student on Laser induced breakdown spectroscopy	1	Advisor	Term 031
17	Designing of experiment for measurement of evaporated front velocity during laser-metal piece interaction, ME 411	1	Co-Advisor with Dr. B.S. Yilbas	Term 021
18	Study of laser application for the surface treatment of mechanical component , ME 411	3	Co-Advisor with Dr. B.S. Yilbas	Term 011
19	Study of laser application for the surface treatment of mechanical component, ME 412	3	Co-Advisor with Dr. B.S. Yilbas	Term 012
20	Trace gas analysis and leak detection based on photoacoustic technique using CO ₂ laser, PHYS 407	1	Advisor	Term 011
21	Trace gas analysis and gas leak detection using photoacoustic spectroscopy, Student name: Fahd Al-Subahi	1	Advisor	Term 011

Teaching Profile:

As Physics Department has no Ph.D. program till 2013 (started in 2014) and also very limited students are available in Master program so most of the teaching load at Physics Department for professors is to teach basic service courses like General Physics (PYP 01, Phys 101 and Phys 102) in large lecture format (LLF). I have taught and developed several courses whatever were assigned to me by chairman Physics department. Since laser have many applications in various disciplines so in addition, I have carried out many senior and capstone projects for undergraduate students from various departments and supervised many master and Ph.D. thesis from various departments like Physics, Chemistry, Mechanical Engineering, Electrical Engineering Department, Women College Dammam and Other International Universities. The details of the Ph.D, Master and Senior Projects are described on earlier pages in the Resume. Followings courses were taught at KFUPM.

Semester	Course	Department
Fall 1993-94	Recitation -Phys.101 General Physics-I	Physics
Fall 1993-94	Phys.503 Experimental Physics	Physics
Fall 1993-94	Senior Projects (Phys.403)	Physics
Fall 1994-95	Phys.503 Experimental Physics	Physics
1995-96	Phys.610 M.S. Thesis	Physics
Spring 1998-99	Physics 102 Lab (four sections)	Physics

Fall 1999	Physics 102 Lab	Physics
Spring 1999-2000	Physics 101 Lab	Physics
Fall 2000-2001	Physics 101 Lab	Physics
Fall 2000-2001	Senior Projects (Mech.411) (Laser application in surface treatment)	Mechanical Eng.
Spring 2001-2001	Senior Projects (Mech.412) (Laser application in surface treatment)	Mechanical Eng.
Spring 2001	(Phys 403, Co-op summer training) Trace gas analysis using photoacoustic technique With CO2 laser	Physics
Spring 2003	Physics 102 Lab	Physics
Fall 2003	Physics 102 Lab	Physics
Spring 2004	Physics 102 Lab	Physics
Fall 2004 (041)	Physics 102 Lab(two sections)	Physics
Spring 2003	Physics 503 (experimental Phys. at MS level)	Physics
Spring 2004	Physics 503 (two different experiments)	Physics
Spring 2004	Senior Project (Mech.411) (Laser application in surface treatment)	Mechanical Eng.
Spring 2001 – Spring 2004	710 Ph.D. Thesis Laser Photocatalysis and its applications in removal of organic pollutants from water	Chemistry
Spring 2005(042)	Physics 102 (LLF+ Recitation 3 sections)	Physics
Summer 2005 (043)	Physics 102 (Recitation 3 sections)	Physics
Summer 2005(043)	Physics 102 (Lab), EE411	Physics,EE
Autumn 2005 (051)	Physics 102(LLF+ Recitation 3 sections)	Physics
Physics 503	Experimental Physics at MS level	Physics
Spring 2006 (052)	Physics (LLF+ Recitation 3 sections)	Physics
PYP 01 2006 (052)	EE411	Elec.Eng.
Autumn 2006(061)	Physics (LLF+ Recitation 3 sections)	Physics
PYP 01 2006	Term 061	Physics
Spring 2006 (062)	Physics (LLF+ Recitation 3 sections)	Physics
PYP 01 2006 (062)	Physics (LLF+ Recitation 3 sections)	Physics
PYP 01 2006 (062)	Physics 503	Physics
Autumn 2007 (071)	Physics (LLF+ Recitation 3 sections) , Phys 102 Lab, Phys 503	Physics
Spring 2007 (072)	Physics (LLF+ Recitation 3 sections), Phys 102 Lab, ME 411	Physics Mechanical Engg.Dept.
Autumn 2008 (081)	Physics (LLF+ Recitation 3 sections)	Physics

Phys 102 Lab	Phys 503	Physics
Spring 2008	Phys 610 Master Thesis, Ph.D Thesis, Chem. 710 , EE411	Physics, Chemistry,EE
Spring 2008 (082)	Phys 102 Lab, Phys 503,EE411	Physics,EE
Spring 2008	Phys 610 Master Thesis, 2 Ph.D Thesis Chem. 710, Chem 409	Physics
Spring 2009 (092)	Physics (LLF+ Recitation 3 sections) Physics 10, Phys 101 Lab, Phys 503, Chem 409	Physics, Chemistry
Spring/autum 2010-2014	Physics 101, Physics 102	Physics
Spring 2014 -2016	Physics 503 Experimental Physics at MS, PhD Level.	Physics
Spring 2014	Phys 701, Special topic course in laser applications	Physics
Spring/autum 2014-2016	Ph.D Phys 711, 712, M.S Phys 610 Thesis (2014-2016)	Physics
Spring/autum 2014-2016	Physics 409, undergraduate seminar	Physics
Spring/autum 2014-2016	Physics 599, seminar (M.S.)	Physics
Spring/autum 2014-2016	Physics 699, seminar (Ph.D.)	Physics

Courses taught at Post Graduate Center For Electro-optics Tripoli

Year

Graduate Level Courses

1986	Laser Systems and their Applications
1987	Atomic Physics
1988	Molecular Physics
1989	Laser Physics

Research Leadership and Development of Laboratories

I have developed excellent research leadership skills, which is evidenced through patents, number of publications, quality of publications, research proposals, and science citations and applied research projects. Three of my recently published papers have been listed in top 25 as cited by Science Direct. In spite of my heavy commitment to my basic research area of atomic and molecular spectroscopy and teaching activities, I managed to keep my research active to cover diversified fields by developing the laser applications in various engineering and scientific problems as per needs of the community at large and the Kingdom in particular and in synchroniuzation with the SNTP (Stratgic National Technology Plan) laid down by ministry of higher education and KACST.

I have published around 390 scientific papers in international refereed journals and conferences such as Applied Optics, J. Physics B, Optics Communications, Chemical Physics Letters, J. Molecular Spectroscopy, Applied Phys B, Spectroscopy Letters, Laser & Optics in Engineering, Nanotechnology, Applied Materials & Interfaces, Applied Surface Science, Science of Advanced Materials, J.Hazardous Materails, J. Nanoparticle Research, Talanta, Applied Catalysis B and A, J. Molecular Catalysis, Catalysis Communication and Conferences of high repute such as Conference on Lasers and Electro-optics (CLEO) and Quantum Electronics and Laser Science Conference, Colloquium Spectroscopicum Internationale, International Quantum Electronics Conference (IQEC) and other regional conferences. Three Patents on my latest inventions have been published by US patent office. My research work has been cited in various international journals and got over 2930 citations as per Google scholar..

I have interacted and shared my knowledge (through seminars) with the scientific community at KFUPM, other universities of the Kingdom and even at the international forums like International Center for Theoretical Physics (ICTP), Trieste Italy, European, American, Australian, Brazilian and Middle East Universities. I have floated many original and innovative ideas for different research projects, which have been tested experimentally and accepted for publications in journals. I have not only worked in my major field of Physics but also contributed reasonably well to interdisciplinary fields such as Nanotechnology, Material Science, Chemistry, Electrical & Mechanical Engineering

and Environmental Science, Earth Science (Geology), Civil Engineering, Petrochemical & Refining and Petroleum Engineering. I have collaborated with scientists from these departments (e.g. Chemistry, Electrical, Mechanical, Earth Sciences, Civil, CRP and PE).

I have submitted many Research proposals and numerous technical discussion papers (ideas) to Saudi-Aramco, SABIC, Saudi Electric Company, BeeA'h, Bitumat, KACST, and to other local industries/organizations in the Kingdom. I have managed, co-coordinated and supervised and completed 13 research projects in the above mentioned areas of basic and applied nature funded internally and externally by clients. I have compiled many Scientific/ Technical reports regarding these projects.

I have participated in reviewing many research papers for various international journals like Applied Optics, Sensor and actuators, Laser and Optics in Engineering Optical and Quantum Electronics, Energy and Fuels, Talanta, Analytical Chemistry, J. Hazardous Materials, E.J. Physics, Applied Spectroscopy, Asian Journal of Spectroscopy etc and for KACST and KFUPM proposals.

I have been on different occasions external examiner for Master and Ph. D. students from King AbdulAziz University, Jeddah and Victoria University, Melbourne Australia, King Saud University Riyadh, National University of Science and Technology (NUST), Pakistan. I supervised Nine Ph.D students. I have been supervisor/co-supervisor for master and senior projects from physics department, mechanical engineering, electrical engineering and chemistry department. I have taught different physics courses as outlined in the CV. My professional and community services covers different activities like teaching, co-ordination and participation in many committees, organizing exhibition, short course and supervising senior projects.

Based on accomplishments in the research, teaching, marketing and other activities, my annual performance evaluation for the last 16 years have been rated as "OUTSTANDING" and I have been awarded Distinguished Professorship award from 2009/2010 which is only awarded to three professors in whole KFUPM. In addition, I have been awarded many national and international awards such as Al-Marai prize, Prince Mohammed Bin Fahd Best Team Award for Excellence in Research in 1995. the Distinguished (Best) Researcher award by KFUPM for the year 2005-2006 based on my research publications and research projects. I am also one of the recipient of the Best Research Paper award, instituted by the British Mechanical Engineers in 2007. Also awarded the Best Paper Award on "Detection of Ozone using Fourth Harmonic of Nd:YAG Laser at 1st International Conference & Exhibition on Laboratory Technology, Manama Bahrain (Oct 20-22, 2008). I was also awarded the best project award among many contenders for year 2008/2009 by KFUPM. Three of my patents on my latest inventions have been published by US patent office. Due to my research profiles, I have been selected as a member Editorial Boards of Eight Journals, AJSE, J. Sensors & Instrum, Int J. Spectroscopy, Int. J. Photoenergy, J. Eng, j. Env. & E. Sci, J. App. Sci, Eng & Tech, Pak. J. Anal. Chem. & Environ. Apart from these distinctions, I have collaborations (Research Projects & Thesis Co-Supervisions) with Chemists, Geologists Chemical Engineers, Mechanical Engineers, and Electrical, Civil and Petroleum Engineers and Material Scientists at KFUPM, and International Institution like Nanjing university China, MIT, USA, National University Singapore, KAUST, IST, and NUST Pakistan.

Laboratory Development Activities:

Worked on the development of the following laboratories :

- **Developed an Environmental Lab for monitoring of Atmospheric Pollution** and for trace gas analysis using **self-developed photoacoustic spectrometer** at Physics Department, KFUPM. The sensitivity achieved with this system is very high ~ pptV and this system has been tested for analysis of gases emitted from the automobile exhaust and also for detection of leaks. A project entitled "in situ detection of SF₆ leaks in power systems using laser" funded by SABIC UR grant was completed and also Saudi Electric Company and one Korean company specialized in Electrical Testing Equipment showed strong interest in the development of a mobile system for detection of leaks in switchgears high power electrical systems.
- **Laser Induced BreakDown Spectrometer (LIBS)** was developed at Physics Department, KFUPM and applied for detection of carcinogenic and poisonous contaminants in food and cosmetic products, oil slicks,

paints, oil residue samples, oil slicks, iron slag, industrial waste, plastic waste, volcanic eruptions, old mines samples, drinking water, geological rocks and other solid samples. Completed many projects funded through the Deanship of University and KACST.

- **Development of a LIDAR** (light detection and ranging) system for remote monitoring of environment and for other applications in the field of Petroleum industry at Physics Department, KFUPM. A prototype system at Lab scale was built using second harmonic of Nd: YAG laser and a telescope having an eight-inch collecting mirror. The telescope has been replaced recently with commercial unit having 16 inch dia collecting mirror. The range resolved study of some pollutants i.e. SO₂, NO₂ has been studied in the differential absorption mode in the laboratory environment. The system has been also tested for the analysis of clouds up to the range of 13 km. Two papers were published which got some international recognition in terms of science citations.
- A **Doppler LIDAR** was developed using ring dye laser and was applied for the remote monitoring of polluted liquid and gaseous discharges.
- **Synthesis of Nano Materials** using “Pulsed Laser Ablation Process” and chemical methods (sol-gel, precipitation etc) for various applications in the field of environment, water purification, fuel cells, sensors, petrochemicals and hydrogen production, carbon management by reduction of CO₂ into value added products like methanol, conversion of green house gases like methane into methanol, removal of heavy metals from water, disinfection of water.
- Synthesis of **Super Hydrophobic, Hydrophilic and Oleophobic surfaces** for oil water separation and self cleaning surfaces using Layer by Layer (LBL) coating, spin coating and cost effective pressurized spray coating techniques developed at KFUPM which is being highly utilized in a joint project with MIT on oil water separation..
- Developed facility for **Dye Sensitized Solar Cells (DSSC)** fabrication at KFUPM.
- Worked on the development of a setup for laser methane cracking using UV laser for Generation of Higher Hydrocarbons (gaseous phase) and Hydrogen under SABIC/URC project funding scheme.
- Worked on the development of a setup for Photocatalysis Conversion of Methane and CO₂ into methanol, production of hydrogen, wastewater treatment and disinfection of bacteria in water using solar and UV laser under SABIC/URC, NSTIP, KACST projects funding.
- Participated in ongoing project on development of a facility for “Regeneration of coated zeolite (catalyst) using a laser photolysis - glow discharge hybrid system” under SABIC /URC project funding scheme.
- Participated in the project for development of facility for non-destructive testing of materials using laser-generated ultrasound.
- Working on Development of New Tunable Laser Sources in the UV and visible region based on Stimulated Raman Scattering process for LIDAR System.
- Working and completed project on Laser Desulfurization of Crude Oil and proposal has been submitted to Saudi Aramco. A patent has been issued
- Completed a joint research five year approved internal project # 12043 on "Investigation of Laser Excited Alkaline Earth Metal Atoms".
- Working as principal investigator /task leader on various projects of applied nature in joint collaboration with academic departments and RI centers. Designed and developed various experiments to carry out the applied research projects. Most of the research work has been published in refereed journals, conference proceedings as well as in project reports.

- Completed many projects (long term and short term) of basic and applied nature funded externally and internally by KFUPM as listed in under project section.
- Was Invited to Deliver key note Speeches /talks/ Lectures on international and national forums as mentioend earlier under seminars etc.
- Have been advisor/ co-advisor / memembr for 9 Ph.D and 14 M.S. thesis students
- Supervised many senior, capstone and Co-op projects in collaboration with faculty memembrs from other departments like EE, ME, Chem and parent department of Physics.

Training of Young Saudi faculty and collaboration with other Faculty members from Different Departments/Institutions

Following KFUPM faculty/staff members were initiated in Research (please see funded projects and Research Publications).

1.	Z.H. Yamani (Phys. Dept.)
2.	Z.Sedighi (UmmulQurah, Mekka)
3.	Nasir Aqeeli (ME Dept)
4.	H.Masoudi (EE Dept.)KFUPM
5.	Gareth H. McKinley, ME, Deptt, M.I. T., USA
6.	Abdulaziz Bagabas (KACST, Riyadh)
7.	Kripa K. Varanasi, ME, Deptt, M.I. T.,USA
8.	John Lienhard, ME, Deptt, M.I. T.,USA
9.	Gibum Kwon, ME, Deptt, M.I. T.,USA
10.	G. K. CHUAH, Chem. Deptt, NUS Singapore
11.	Y. Messedq, Phys.Deptt, Université Laval, Canada
12.	A.H. Bakary (KAAU, Jeddah)
13.	A.Arfaj (Chem. Dept.)
14.	S.M.Zubair (ME,Dept)
15.	G.Khattak (Phys. Dept)
16.	A. Mekki(Phys. Dept)
17.	Saleem Rao (Phys.Dept)
18.	Shanker (Phys.Dept)
19.	M. Al-Harti (Chem Eng. Dept)
20.	M.I. Ismail(KAAU, Jeddah)
21.	Josef Pola (Parague Check Republic)
22.	M.H.Shwehdi (EE, Dept and KFU)
23.	G. Mackenley (MIT)
24.	K.Varanasi (MIT)
25.	Z.Ahmed (Earth Science Dept.)
26.	N. Siddiqui (Chem. Dept.)
27.	M. A. Ali (CPR,RI)
28.	B. S.Yilbas (ME. Dept.)
29.	M.Arif (ME. Dept.)
30.	T.Hussain (Phys.Dept)

31.	M. N. Sayeed (Chem. Dept.)
32.	A. Hameed (Envirn. C.E. KAAU. Jeddah)
33.	M. Nasr (Phys.Dept, Riyadh Medical College)
34.	K.Hayat (Chem. Dept.)
35.	K.Drmoosh (CENT).
36.	A. Al-Aswad (Phys.Dept) Saudi

Consultancy to National and International Scientific Institutes (visits)

- Center for Optics and Photonics (<http://www.cercp.ca/en/team/>), Laval University, Quebec, Canada: contact and collaborator; Dr. Younes Messaddeq, Chaired Professor.
- Institute of Environmental Sciences and Engineering, National University of Sciences and Engineering (NUST, ranked at 350th in the world ranking), Rawalpindi, Pakistan for setting up laboratory for environmental monitoring using laser remote sensing technique, 2003 - 2008.
- Institute of Space Technology (IST) Islamabad, Pakistan for setting up Center of excellence in Advanced Materials (2013-till date)
- Invited as Visiting Professor, Physics Department, Free University Berlin, FR Germany to enhance the research in laser based pollution monitoring technique such as LIBS.(Summer, 2003) LIDAR.
- Invited as Visiting Professor, Institute of Physical Chemistry University of Heidelberg, FR Germany to enhance the research in laser based pollution monitoring technique such as Photoacoustic .(Summer, 1995)
- Consultancy to Physics Department, King AbdulAziz University, Jeddah for setting of Laser laboratory for pollution monitoring using Photoacoustic and LIBS technique and to establish research collaboration among KFUPM and KAAU. Visited many times to KAAU and also advised young Saudi faculty for master thesis. Dr A. Bakari and Dr. Reem specialist in laser spectroscopy from Physics department KAAU are the contact persons.
- Institute of Hydrochemistry Technical University Munich, Consultancy on applications of photoacoustic spectrometry for detection of water in oil for off shore drilling platforms, Contact Person: Dr. Christoph HAISCH and his group
- Physics Department, University of Qatar Consultancy on applications of laser induced breakdown spectroscopy for detection of trace metals and spectral analysis assignment. Contact Person: Dr. Mosa Al-Rabban.
- Physics Dept, King Saud University (KSU) for joint research work and help. Consultation for establishment of joint research program on LIBS. Contact Person: Dr. Saleh Al-Slaehi

Community Services and Committee work:

Year	Committee and its Role
1992	Member, Committee responsible for evaluation of servicing and maintenance of TEA CO ₂ laser system.
1993	Member, Committee responsible for reviewing internal reports and publications of Division-II, R.I.
1994	Member, Committee responsible for the study of laser applications in leak detection across pipelines. Member, Equipment Receiving Committee, R.I.
1995	Member, Committee appointed by H.E. the Rector, responsible for organizing a 10

	days exhibition on lasers and their applications entitled "Lights on Light" at KFUPM.
1996	Member, committee responsible for technical co-operation and interface with industry.
1997	Member, committee responsible for technical co-operation and interface with industry. Member, Conference and publication committee by Vice Rector, Applied research.
1998	Member promotion committee Member, Annual award evaluation committee, Member, planning committee for next Five years research projects and marketing plan for Laser Research Section (LRS), Co-coordinator for monthly progress report of LRS
1999	Member committee for Short course on laser and their applications, Chairman - Equipment maintenance committee, Member -Planning committee for next two years research projects and marketing plan for LRS, Member, planning committee for next Five years research projects and marketing plan for Laser Research Section (LRS); Co-coordinator for monthly progress report of LRS
2002	Member Adhoc Committee for best researcher award for RI
2002-2003	Member Adhoc Committee for Team incentive award Co-coordinator for monthly progress report of LRS, Member Adhoc Committee for Team incentive award Co-coordinator for monthly progress report of LRS
2003-2004	Member Adhoc Committee for salary adjustment, grievances and campus housing for RI employees
2004-2005	Member Standing Committee for Research for Physics Department, Member Standing Committee Phys 102 for Physics Department
2005-2006	Member Standing Committee Phys 102 for Physics Department Member Standing Committee for Research for Physics Department, Chairman Standing Committee for Teaching for Physics Department Member Standing Committee for all experimental Labs for Physics Department
2006-2007	Member, University Research Advisory Committee to promote research at KFUPM under chairmanship of H.E. Rector., Member Standing Committee for industrial liason for Physics Department Member Standing Committee for Teaching, Physics Department, Member Standing Committee for Research for Physics Department
2007-2008	Member, University Research Advisory Committee to promote research at KFUPM under chairmanship of H.E. Rector. Member Standing Committee for Teaching for Physics Department, Member Standing Committee for Research for Physics Department Member Standing Committee Phys 102 for Physics Department
2007-2009	Member Standing Committee to develop plan for Ph.D. program at Physics Department
2008-2009	Member Standing Committee Phys 102 for Physics Department Member Standing Committee for Research for Physics Department Member IMEG (Infrastructure and Major Equipment Grant) committee Member committee responsible for Distinguished Research Award
2009-2010	Member Standing Committee University Scientific Research Council, Member Adhoc Committee for formulation of Guidelines for best Thesis Award, Member Adhoc Committee for formulation of Guidelines for best Thesis

	Award, Chairman, faculty promotion Committee, Member Standing Committee Phys 102 for Physics Department
2010-2011	Chairman, faculty promotion Committee Member, faculty promotion Committee Member Standing Committee for Research and Industrial Liaison for Physics Department Physics 102 teaching committee
2011-2015	Member, faculty promotion Committee, Distinguished professorship committee, Member Standing Committee for Research and Industrial Liaison for Physics Department Member, faculty promotion Committee Physics 102 teaching committee
2013-2014	Chairman, Standing Committee for Research and Industrial Liaison for Physics Department Member Exam Committee Physics 101
2013-2015	Member University Scientific Research Council
2015-2016	Member Department Hiring Committee
2015-2017	Member University Scientific Council
2016-2017	Member Advisory Committee Chairman Physics
2011-till date	Member Editorial Boards of 7 Journals

Citations : Over 4205 as per Google Scholar Record, H-index 37