Resume

Dr. Mohammed Ashraf Gondal

(Saudi Citizen)

Distinguished Professor

Director/Coord Laser Research Group

Senior Research Fellow K. A. CARE

World Class Professor (WCP-visiting) Ministry of Education, Indonesia

Field of Specialization

(Applied Physics)

(Lasers and Their Applications)

Renewable Energy/Solar Cells, Green Hydrogen Production, Supercapacitors, Sustainability, Laser Spectroscopy (LIBS,PAS,LEI) Nanotechnology, NanoTechnology, Photonics Devices, Material Science, Advanced Materials, Biophysics, Environment Protection & Monitoring, Sensures, CO_2 Reduction/Utilization, Chemical Science, Wetting and non-Wetting Surfaces, Oil Water Separation, Waste Water Treatment, Photo-catalysis & Electrocatalysis

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Homepage: http://faculty.kfupm.edu.sa/Phys/magondal

https://scholar.google.com/citations?user=0Bjfd6oAAAAJ&hl=en

https://www.linkedin.com/in/mohammed-a-gondal-721a2620/

Listed in Top 10 Laser-Physics Scientists Worldwide as per Google Scholar

Top 2% of Scientists (Stanford University)

Citations: Over 17870, H-index= 67

US Patents = 64 (Granted/published)

under Review = 15

Funded Research Projects Completed = 72

Publications = 690 (464 ISI journals, 226 Conferences)

Books = 1 and Book Chapters = 19

Ph.D. Student Supervised = 26

Master Student Supervised = 35

Senior Projects = 21

No of Awardee (Ibdah, Moheba High School Girls/boys Students) - ISEF USA Olympiads Mentorship = 33

Career Objectives:

Community Services, Teaching, and Research in the field of **Applied Physics**, Lasers, Nanotechnology, Renewable Energy, Third-generation Solar Cells, Energy Storage (supercapacitors and batteries) and wetting and non-wetting surfaces for oil-water separation, anticorrosion, self-cleaning & as dust repellent surfaces, plasma sources, sensors, electrical dust shielding (EDS) system development as unmanned dust repellent for PV modules self-cleaning. Working also on the development of laser-based techniques for pollution monitoring, mineral exploration, elemental analysis of geological rocks, bio-samples, herbal medicines, and material characterization like Photoacoustic, LIBS, LIDAR (for atmospheric remote sensing), Optogalvanic, Laser enhanced ionization (LEI) atomic and molecular spectroscopy, laser/solar induced photo-catalysis applications for green Hydrogen production, water purification, reduction of CO_2, CH_4 for Carbon management and utilization to develop value-added hydrocarbons, desulfurization of crude oil and petrochemicals using nano materials, which are in line with National Strategic & Technology Plan (NSTIP) of KSA as well the Global and the Kingdom needs. Collaborating with various top World- Class University Professors (MIT, Kansas University USA, NUS Singapore, University of Exeter UK, Nanjing University China, National University Taiwan, Banda Aceh University Indonesia, King Abdullah University (KAUST) Thuwal, King Saud Uni Riyad, King Abdulaziz Uni Jeddah, and IAU Dammam University, Hafr Al Batin University, Umm Al Qura University Makkah, Jizan University, and many KFUPM Departments in multidisciplinary areas and projects directly relevant to the sustainable development of any nation. Mentorship of winners of Undergraduate Students for Under Graduate Research Competition (organized by Abu Dhabi University and sponsored by Exxon Mobile and Mentorship of High School Saudi Girls for International Science and Engineering Fair (USA), Moheba and Ibdah Olympiads held at provincial, and national levels.

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,1974. (Silver Medalist)
- **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.
March 2019 – to date	**Senior Research Fellow**, King Abdullah City for Atomic and Renewable Energy (K.A. CARE) Riyadh
Oct 2019- Nov 2019	Visiting **World Class Professor (WCP)**, Banda Aceh University, Education Ministry Indonesia
June 2012- august 2017	**Visiting Professor** (Research affiliate) MIT, Cambridge, USA.
October 2009- to date,	**Director Laser Research Group**
June 2015- 2020,	**Collaborator and Affiliate** NUS Singapore.
June 2017-2019	**Collaborator,** Kansas University, USA**.**
April 2022-March 2022	**Collaborator,** Exeter University, United Kingdom**.**
June 2010 – June 2017	**Collaborator** Nanjing University of Aeronautics and Astronautics, China.
July 15 - August 25, 2003	**Visiting Professor**, Applied Physics Institute, Free University, Berlin, Germany.
July 21 - August 20, 1995	**Visiting Professor**, Heidelberg University Germany
August 2001 - 2010	**Professor,** Physics Department, KFUPM.

August 1991 - 2001 **Research Scientist I/Assoc Prof.** Center for Applied Physical Science, Research Institute, KFUPM.
Jan 1984 – Nov 1991 **Principal Research Scientist,** Post Graduate Center for Electro- Optics Tripoli.
Oct 1979 -December 1983 **Research Fellow,** Institute of Applied Physics, Rheinischen Friedrich Wilhelms University Bonn, Germany.
January 1977 – Oct 1979 **Research Scientist,** Laser Group, PINSTECH, Nilore Islamabad, Pakistan.

Communication Skills: Writing, Reading and Speaking: English, German, Arabic, Urdu, Punjabi

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

Honors, Awards, Recognitions:

- **High Impact Paper Award 2022 for** paper entitled "Fabrication of perovskite solar cell using novel 2D/3D blended perovskite single crystals published in International Journal of Energy Research(2021)
- **High Impact Paper Award 2022 for** paper entitled "Anchoring of graphitic carbon nitride on reduced graphene sheets by UV pulsed laser irradiation for augmented photoelectrochemical water splitting"**,** published in International Journal of Energy Research (2021).
- **Saudi Citizenship** based on distinguished contribution to science, education and community services, honored with Saudi Citizenship by His Majesty King Salman Ben Abdulaziz.(December 2021).
- **Among the Top 10 Laser Physics Scientists Worldwide**
- https://scholar.google.com/citations?hl=en&view_op=search_authors&mauthors=label%3Alaser_physics&btnG=
- **Among the Top 2 % of world-renowned Scientists** consecutively as per data published by **Stanford University**, each year.
- **Undergraduate Research Competition Team Mentorship Award** by Abu Dhabi University, June 8, 2021
- **Distinguished Professorship Award** from the King Fahd University of Petroleum & Minerals, academic year 2009-2010, 2012-2013, 2015-2016, 2018-2019, 2021-2022.
- **Best Project Award** from King Fahd University of Petroleum & Minerals, academic year 2016- **Project# Rg131** Synthesis of Nanoalloys and Nanocomposites Using Pulsed Laser Ablation in Liquids
- **Excellent Oral Presentation Award** during International Conference on Optoelectronics and image processing (ICOIP 2015) held at Chicago (July 2-4, 2015) USA, sponsored by American Society for Research (ASR).
- **Best Project Award** from NSTIP/KFUPM for academic year 2014 for National Strategic 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.
- Highly prestigious **AL-Marai Prize** for Innovative Research in the area of waste water treatment using nano-catalysts in the Field of Environment for year 2010/2011.
- **Thrice Distinguished Researcher Award** from the King Fahd University of Petroleum & Minerals, academic years 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).
- **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 wastewater 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.
- **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 University, 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**. (1979-1983).
- **Associate Membership**, **International Center for Theoretical Physics** (ICTP) Trieste, Italy, 1988-1995.

1. **Key Note Speaker,** 9th Symposium on analytical and environmental Chemistry, Baragali , Pakistan (July 24-26,2006).

Inventions and US Patents:

S/N	US PATENT NUMBER	TITLE	INVENTORS	DATE
1.	US Pat 20240410067A1	Method for Hydrogen GAs	MJS Mohamed, MA Gondal etal.	2024/12/12
2.	US Patent 18/303,767	Defective perovskite nanostructured material-based electrode for electrochemical water splitting and method of preparation thereof	MJS Mohamed, MA Gondal	2024/10/24
3.	US Patent App. 18/185,166	Perovskite-based nanocomposite (ptnc) material-based electrode and method of preparation thereof for electrocatalytic hydrogen evolution reaction	MJS Mohamed, MA Gondal	2024/9/19
4.	US -17/865,610-A1	Method of making thermoelectric materials	Wudil; Gondal	18-01-24
5.	US-11862396-B1	Single junction super-capacitive solar cell for energy harvesting and energy storage and method of preparation thereof	Hassan; Gondal et al.	02-01-2024
6.	US-11759754-B2	Stainless steel filter membrane with iron oxide coating	Gondal; Mohammed A. et al.	2023-09-19
7.	US-11749466-B1	Light harvesting supercapacitor and method of preparation thereof	Hassan; Gondal et al.	2023-09-05
8.	US-11651907-B1	Fabrication of magnetic supercapacitor device using self-synthesized magnetic nanocrystals via facile sol-gel method	Gondal; Muhammad A. et al.	2023-05-16
9.	US-11635386-B2	Quantification of the micronutrient	Gondal; Mohammad	2023-04-25

		profile in Moringa oleifera tree leaves using calibration free laser induced breakdown spectroscopy	A. et al.	
10	US-11579130-B2	Room temperature UV-activated hydrogen gas sensor	Drmosh; Gondal et al.	2023-02-14
11	US-20230027081-A1	STAINLESS STEEL FILTER MEMBRANE WITH IRON OXIDE COATING	GONDAL; Mohammed A. et al.	2023-01-26
12	US-11478761-B2	One-step scalable fabrication of mechanically robust visible-light responsive oxide-modified metallic multifunctional membranes	Gondal; Mohammed A. et al.	2022-10-25
13	US-11415582-B2	Method for detecting and treating colon cancer by measuring heavy metal concentrations	Gondal; Muhammad Ashraf et al.	2022-08-16
14	US-20220163453-A1	QUANTIFICATION OF THE MICRONUTRIENT PROFILE IN MORINGA OLEIFERA TREE LEAVES USING CALIBRATION-INDUCED BREAKDOWN SPECTROSCOPY	GONDAL; Mohammad A. et al.	2022-05-26
15	US-11049666-B2	Fabrication of platinum counter electrodes for bifacial dye-sensitized solar cells	Popoola; Gondal et al.	2021-06-29
16	US-20210190721-A1	ROOM TEMPERATURE UV-ACTIVATED HYDROGEN GAS SENSOR	Drmosh; Gondal et al.	2021-06-24
17	US-20210123915-A1	METHOD FOR DETECTING AND TREATING COLON CANCER BY MEASURING HEAVY METAL CONCENTRATIONS	GONDAL; Muhammad Ashraf et al.	2021-04-29
18	US-10695723-B2	Dye-sensitized photoactive surfaces	Varanasi; Gondal. et al.	2020-06-30
19	US-10525419-B2	Membrane for oil-water separation and simultaneous removal of organic pollutants	Qahtan; Gondal. et al.	2020-01-07
20	US-20190311859-A1	FABRICATION OF PLATINUM COUNTER ELECTRODES FOR BIFACIAL DYE-SENSITIZED SOLAR CELLS	POPOOLA; Gondal et al.	2019-10-10
21	US-10421672-B2	Method of forming a photocatalyst and disinfecting a fluid	Gondal; Muhammad Ashraf et al.	2019-09-24
22	US-20190282970-A1	ONE-STEP SCALABLE FABRICATION OF MECHANICALLY ROBUST VISIBLE-LIGHT RESPONSIVE OXIDE-MODIFIED METALLIC MULTIFUNCTIONAL	GONDAL; Mohammed A. et al.	2019-09-19

		MEMBRANES		
23	US-10323318-B2	Method for forming a silver/carbon nanocomposite coating	Gondal; Mohammed Ashraf et al.	2019-06-18
24	US-20190126210-A1	MEMBRANE FOR OIL-WATER SEPARATION AND SIMULTANEOUS REMOVAL OF ORGANIC POLLUTANTS	QAHTAN; Gondal et al.	2019-05-02
25	US-10210999-B2	Dye-sensitized solar cell including a semiconducting nanocomposite	Alghamdi; Gondal Mohammed et al.	2019-02-19
26	US-20190048461-A1	METHOD FOR FORMING A SILVER/CARBON NANOCOMPOSITE COATING	Gondal; Mohammed Ashraf et al.	2019-02-14
27	US-20190031535-A1	METHOD OF FORMING A PHOTOCATALYST AND DISINFECTING A FLUID	GONDAL; Mohammad Ashraf et al.	2019-01-31
28	US-10174418-B1	Method of preparing core/shell nanocomposite thin films	Gondal; Mohammed Ashraf et al.	2019-01-08
29	US-10160665-B1	Fixed bed method for disinfecting fluids	Gondal; Muhammad Ashraf et al.	2018-12-25
30	US-10131601-B1	Catalytic methanol formation with pulsed UV light	Gondal; Muhammad Ashraf et al.	2018-11-20
31	US-10131602-B1	Catalytic methanol formation from carbon dioxide with a templated indium catalyst	Gondal; Muhammad Ashraf et al.	2018-11-20
32	US-10125418-B2	Method for the preparation of Ag/C nanocomposite films by laser-induced carbonization of alkane	Gondal; Mohammed Ashraf et al.	2018-11-13
33	US-10125031-B2	Method for disinfecting a fluid with a palladium-doped tungsten trioxide photo-catalyst	Gondal; Muhammad Ashraf et al.	2018-11-13
34	US-10047027-B1	Method of forming methanol via photocatalytic reduction of carbon dioxide	Gondal; Muhammad Ashraf et al.	2018-08-14
35	US-20180182562-A1	DYE-SENSITIZED SOLAR CELL INCLUDING A SEMICONDUCTING NANOCOMPOSITE	ALGHAMDI; Jwaher Mohammed et al.	2018-06-28
36	US-9926495-B2	Method for desulfurizing diesel fuel	Alhooshani; Gondal. et al.	2018-03-27
37	US-9873816-B2	Crumb rubber coating composition and method for protecting a surface	Al-Aqeeli; Gondal et al.	2018-01-23
38	US-20170267936-A1	METHOD FOR DESULFURIZING DIESEL FUEL	ALHOOSHANI; Gondal. et al.	2017-09-21
39	US-20170218221-A1	CRUMB RUBBER COATING COMPOSITION AND METHOD FOR PROTECTING A SURFACE	AL-AQEELI; Gondalet al.	2017-08-03

40	US-9670375-B1	Crumb rubber coating with a hydrophobic surface	Al-Aqeeli; Gondal al.	2017-06-06
41	US-9663724-B2	Method using alumina-zinc oxide-nickel oxide composite for desulfurization of hydrocarbons	Alhooshani; Gondal et al.	2017-05-30
42	US-20160367946-A1	DYE SENSITIZED PHOTOACTIVE SURFACES	VARANASI; Gondal. et al.	2016-12-22
43	US-20160355409-A1	METHOD FOR DISINFECTING A FLUID WITH A PALLADIUM-DOPED TUNGSTEN TRIOXIDE PHOTO-CATALYST	GONDAL; Muhammad Ashraf et al.	2016-12-08
44	US-9505635-B2	Wastewater filtration system and method	Gondal; Mohammed Ashraf et al.	2016-11-29
45	US-20160281004-A1	NOVEL METHOD FOR PREPARING ALUMINA-ZINC OXIDE-NICKEL OXIDE COMPOSITE FOR DESULFURIZATION	ALHOOSHANI; Gondal et al.	2016-09-29
46	US-9421516-B2	Method for preparing alumina—zinc oxide—nickel oxide composite for desulfurization	Alhooshani; Gondal al.	2016-08-23
47	US-20160222502-A1	METHOD FOR THE PREPARATION OF AG/C NANOCOMPOSITE FILMS BY LASER-INDUCED CARBONIZATION OF ALKANE	GONDAL; Mohammed Ashraf et al.	2016-08-04
48	US-9399576-B2	450 nm visible light-induced photosensitized degradation of rhodamine B molecules over BiOBr in aqueous solution	Gondal; Muhammad Ashraf et al.	2016-07-26
49	US-9170218-B2	Nitrogen detection in bulk samples using a D-D reaction-based portable neutron generator	Naqvi; Gondal et al.	2015-10-27
50	US-20150196788-A1	450 NM VISIBLE LIGHT-INDUCED PHOTOSENSITIZED DEGRADATION OF RHODAMINE B MOLECULES OVER BIOBR IN AQUEOUS SOLUTION	GONDAL; Muhammad Ashraf et al.	2015-07-16
51	US-20150182946-A1	NOVEL METHOD FOR PREPARING ALUMINA-ZINC OXIDE-NICKEL OXIDE COMPOSITE FOR DESULFURIZATION	Alhooshani; Gondal et al.	2015-07-02
52	US-20150174567-A1	HYBRID PHOTOCATALYST FOR WASTEWATER REMEDIATION	GONDAL; MOHAMMED ASHRAF et al.	2015-06-25
53	US-20150175444-A1	WASTEWATER FILTRATION SYSTEM AND METHOD	GONDAL; MOHAMMED ASHRAF et al.	2015-06-25

54	US-20150168319-A1	NITROGEN DETECTION IN BULK SAMPLES USING A D-D REACTION-BASED PORTABLE NEUTRON GENERATOR	NAQVI; Gondal et al.	2015-06-18
55	US-9034169-B2	Method for detection of cyanide in water	Gondal; Mohammed Ashraf et al.	2015-05-19
56	US-20140305844-A1	IONIC LIQUID FOR DESULFURIZATION OF LIGHT FUELS	SIDDIQUI; MOHAMMAD NAHID et al.	2014-10-16
57	US-20130203178-A1	METHOD FOR DETECTION OF CYANIDE IN WATER	GONDAL; MOHAMMED ASHRAF et al.	2013-08-08
58	US-8460538-B2	Method for detection of cyanide in water	Gondal; Mohammed Ashraf et al.	2013-06-11
59	US-20110303050-A1	Method of forming zinc peroxide nanoparticles	Gondal; Mohammed Ashraf et al.	2011-12-15
60	US-20110303555-A1	Method for detection of cyanide in water	Gondal; Mohammed Ashraf et al.	2011-12-15
61	US-7871501-B2	Laser-based method for removal of sulfur (DMDBT) in hydrocarbon fuels	Gondal; Muhammed A. et al.	2011-01-18
62	US-20080110802-A1	Laser-based method for removal of sulfur (DMDBT) in hydrocarbon fuels	Gondal; Muhammed A. et al.	2008-05-15
63	US-20050226808-A1	Laser photo-catalytic process for the production of hydrogen	Gondal, Mohammad Ashraf et al.	2005-10-13
64	US-20050045467-A1	Method for the conversion of methane into hydrogen and higher hydrocarbons using UV laser	Gondal, Mohammad Ashraf et al.	2005-03-03

List of Publications:

Book/or book Chapters

1. **Book**: **M. A. Gondal**, X. Chang and M. A. Dastageer, "Advanced Structured Materials : Novel Bismuth Oxyhalide Based Materials and their Applications , published by Springer, ISBN(ebook): 978-81-322-3739-6; (Hardcover): 978-81-322-3737-2; DOI: 10.1007/978-81-322-3739-6.
2. **M. A. GONDAL**, Rohrbeck W, Urban W, Blanckart R, Brown J. Vibration-Rotation Transitions in the Fluoromethylidyne Radical, Studied By Laser Magnetic Resonance Spectroscopy at 7.8 μM. Chemischer Informationsdienst. 1984 Jan 31;15(5) (Wiley-Harvard-Chicago-Vancouver-APA-MLA)
3. **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).
4. A. Bagabas, **M. A. Gondal**, et al (2010), Laser-Induced Photocatalytic Inactivation of Coliform Bacteria in Water Using Pd-Supported on Nano-WO_3 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*.
5. Khan, M.A., **M. A. Gondal,** M.H. Rais and M. Rafique (1996), Gain in laser-pumped vapor: Experiment and Calculations " Laser Spectroscopy, 12, ed. M. Inguscio *(World Scientific, Singapore).*

6. X. Chang, **M.A. Gondal**, Z. H. Yamani, G. Ji (2013) "Bismuth(V) containing semiconductor compounds: preparation, optical properties and applications in heterogeneous photo-catalysis for water, ed. L.Handong, Z. M. Wang, Bismuth (V)-Containing Semiconductor Compounds and Applications in Heterogeneous Photocatalysis, page 343-373 Chapter · January 2013 DOI: 10.1007/978-1-4614-8121-8_15. Springer Series in Materials Science, Vol. 186, 2013,
7. **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
8. V.K. Singh, N. Sharma, D. K. Tripathi, **M.A. Gondal** (2018): Elemental Imaging of Plant Species Using LIBS: Current Status and Future Prospects, in book, Springer Series in Optical Sciences
9. K. Ahmad, **M. A.Gondal** (2020) Band Gap Engineering of Tin Halide Perovskite Materials For Sustainable Energy Conversion Applications, Kuan Cheong Allen Apblett (eds) Sustainable Materials and Green Processing for Energy Conversion, First Edition. Elsevier ISBN: 9780128228388
10. **M. A. Gondal*,** K. Ahmad (2020) Reduced graphene oxide supported hybrid composites for electrochemical sensor applications, K., O. Vasilievna, T. Martinez, L. Myriam, Kharisov, B. Ildusovich (Eds.) Handbook of Nanomaterials and Nanocomposites for Energy and Environmental Applications, Springer Nature (Switzerland) Print + eBook ISBN : 978-3-030-36269-0.
11. R. K. Aldakheel**, M. A. Gondal*,** M.A. Almesserie (2022)**,** Elemental Analysis of Cultivated Soil using Laser-Induced Breakdown Spectroscopy, Laser Induced Breakdown Spectroscopy (LIBS): Concepts, Instrumentation, Data Analysis and Applications (Wiley ,2023) https://doi.org/10.1002/9781119758396.ch39
12. R. K. Aldakheel**, M. A. Gondal*,,** M.A. Almesserie (2022)**,** LIBS—A Capable Methodology for the Analysis of Food Products, (Wiley 2023) https://doi.org/10.1002/9781119758396.ch41
13. K. Ahmad, M. Q. Khan , W. Raza, **M. A. Gondal*,** Recent Progress in Metal-Organic Frameworks for the Fabrication of Chemical Sensors (ACS 2022) DOI: 10.1021/bk-2021-1394.ch003.
14. K. Ahmad, W. Raza, M. Q. Khan**, M. A. Gondal*,** MOF-based Catalysts for the Production of Value-added Fine Chemicals, ACS Symposium Series, Volume 1393, Pages 133 - 1512021
15. A. Roy, **M.A.Gondal** et al (2023) Possible Fabrication Strategies to Enhance the Performance of Dye-Sensitized Solar Cells, Photovoltaics Beyond Silicon, 2024, pages: 223-254, 1st Edition, edited by Aloysius Hepp and published by Elsevier.
16. YS Wudil , **M.A.Gondal** etal (2023)Applied Raman Spectroscopy: Instrumentation, Chemometrics, and Life Science Application (Elsevier 2023)
17. M.J.S Mohamed, **M.A. Gondal** , A. Roy (2023) Research Trends in Photocatalytic Water Purification: Current Perspectives and Future Prospects – A Reviewc Modern Nanotechnolog, Volume 1: Environmental Sustainability and Remediation, pp 197–221 (Springer 2023).
18. M. J.S Mohamed, **M.A. Gondal** (2024) Photocatalytic Hydrogen Production of Perovskite Based Nanocomposites by Green Laser Irradiation Techniques, Emerging Applications of Novel Nanoparticles, 301-318 (Springer, May 24, 2024).
19. I. Rehan and **M. A. Gondal** (2024) Calibration-Free Laser-Induced Breakdown Spectroscopy and Applications published in Laser-Induced Breakdown Spectroscopy (LIBS) - Chemometrics, Environmental Applications edited by V.V. Singh, Springer Nature (2024).
20. A. Roy, T.K. Mallick, A.Ali Tahir, **M.A. Gondal** (2024)Advanced fabrication strategies to enhance the performance of dye-sensitized solar cells Chapter in Book on "Photovolataic beyond Silicon", Pages 223-254, ISBN (Electronic)9780323901888; ISBN (Print)9780323901895

Publications in International (ISI Listed) Journals

*Corresponding author

1. MA Almessiere, A Baykal, Y Slimani, Sagar E Shirsath, **Mohammad A Gondal***, A Ali, A Mihmanlı. (2025) Comprehensive investigation on microstructure, electrical/dielectric and magnetic features of novel equimolar Co3-4x (MnxFexNixCrx) O4 (x= 0.05, 0.10, and 0.15) nanoparticles.Materials Research Bulletin, 188, 113432.
2. Sultan Ahmed, **Mohammad A Gondal***, Javed Alam Khan, Munirah A Almessiere, Abdulhadi Baykal. (2025) Molybdenum substituted Ni-Mn cobaltite spinel nanostructure for high performance Ultracapacitors. Materials Science and Engineering: B, 317,118230.
3. Yakubu Sani Wudil, **MA Gondal**, Mohammed A Al-Osta. (2025) Investigating lithium-ion battery discharge capacity under variable operating conditions using nature-inspired hybrid algorithms with minimal descriptors. Journal of Energy Storage, 118, 118310.
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Conference Publications/presentations

465. **Key Note Speaker, '**Functional Nanomaterials Synthesis Using Advanced Pulsed Laser Ablation Technique and Their Applications in Third Generation Solar Cells, Supercapacitors and Green Hydrogen Production**.'** UMT 2nd international conference on emerging trends in Physics (ICB-2025) April 14-15, UMT Lahore, Pakistan.
466. **Key Note Speaker,** A Green Synthesis Method for Functional Nanomaterials using Pulsed Laser Ablation and Their Applications in Sustainable Energy Applications (Harvesting, Storage, Hydrogen). 3rd Scientific colloquium Spring-2025. the Govt. Graduate College, Jhelum · Feb 21.
467. **Key Note Speaker "**Advanced Materials for Sustainable Energy Applications", 4th IIScience International Conference on Recent Adavances in Photonic and Physical Sciences sponsored by SPIE, UNC Charlotte,USA held at Women University Lahore (16-18 April 2024, Pakistan).
468. **M.A.Godal,** Detection Of Nutrients And Toxic Elements In Cultivated Soil Using Laser Induced Breakdown Spectroscopy and ICP-OES Spectrometry, International Symposium on Molecular Spectroscopy, Urbana Champaign, USA (17-21 June,2024) paper: P7457.
469. A. Ahmar, **M.A. Gondal** et al (2024)Synergistic Effects of Mn-Ru Co-Doping in $LaNiO_3$ Perovskite Nanoparticles for Superior Supercapacitor Performance, Nano 2024, The 17th International Conference on Nanostructured Materials, held in Khalifa University Abudhabi , UAE.
470. S.Ahmed**, M.A. Gondal** et al **,** Cerium-doped Nickel Manganite Spinel for high-performance supercapacitors by Cerium-doped Nickel Manganite Spinel for high-performance supercapacitors, 7th International Conference on Renewable Energy and Environmental Engineering held in Nantes, France (August 28-30,2024).
471. **Key Note Speaker**, International Conference on New Trends in Renewable Energy and Environment for 2030 Vision (ICNTREE 2023)- Aljouf 28-31 January 2023.
472. **Key Note Speaker**, 3rd II Science International Conference 2023, Recent Advances in Photonics and Physical Sciences March 07-09,2023 Faisalabad, Pakistan.
473. **M.A.Gondal***, R..K. Aldhakeel, M. A. Almessiere, Pectrochemical Analysis For Nutrients And Toxic Heavy Metals Detection In Abundantly Utilized Herbal Medicine (Schilajit) By Employing Three Advanced Analytical Techniques, international Symposium on Molecular Spectroscopy, Urbana Champaign, USA (19-23 June,2023).
474. M.A.Gondal, The 18th Middle East Corrosion Conference and Exhibition (MECC), (13-16 Nov,2023) Bhahrain.
475. M.A. Gondal*** Key Note Speaker**, Green Synthesis Method for Functional Nanomaterials using Pulsed Laser Ablation and Their Applications for Energy Harvesting, Energy Storage, Hydrogen and Photonic Devices, International Conference on Solar Energy Materials and Technology (ICSEMT-24-25 Novemeber 2022) Exeter, England.
476. M.A.Gondal*, R..K. Aldhakeel, M. A. Almessiere, Analysis of Tinnevelly Senna Leaves Herbal Medicine Using Laser-Induced Breakdown Spectroscopy and Its Anti-Cancerous & Antibacterial Efficacy Studies, International Symposium on Molecular Spectroscopy Urbana-Champaign 75th Meeting Champaign-Urbana, Illinois,USA. (June 20-24, 2022).
477. M.A.Gondal*, Synthesis of Nano Materials Using Green Laser-based Method and Their Applications in Renewable Energy Harvesting, Energy Storage , 1st Gulf Chemistry Association International Conference and Exhibition 15 - 17 Nov 2022, Bahrain
478. M.A. Gondal*,, Laser Induced Breakdown Spectroscopy for Detection of Heavy Metals in Cancerous and Healthy Colon Tissues, International Symposium on Molecular Spectroscopy University of Illinois at Urbana-Champaign 74th Meeting - June 22-26, 2020 Champaign-Urbana, Illinois,USA. (June 21-25, 2021).
479. M.A. Gondal*, **Key Note Speaker**, Laser Induced Breakdown Spectroscopy: Fundamentals and Applications to Biocompatible Sample Analysis, Virtual Conference of 11th International Seminar on New

pardigigm and Innovation of natural sciences and its applications (ISNPINSA) held at Diponegro Univeristy Indonesia (14-15th October,2021).

480. M.A. Gondal*, **Key Note Speaker**, Adavnced Functional materials prepartaion Using Pulsed Laser Ablation Technique for Renewable Energy Generation and Storage 7th International Congress on Energy Efficiency and Energy Related Materials" Blue Lagoon, Fethiye / Mugla TURKEY (October 17-23, 2021)
481. M.A. Gondal*,, Invited Talk- Facile Synthesis of Pure and Ag Loaded WO3 Nano-catalysts for Photo-induced Killing of HeLa Cancer Cells, International Workshop on Nanomedicine – Development and Challenges, COMSTECH Secretariat, Islamabad (March 15 – 17, 2021).
482. M.A. Gondal*, **Invited Talk**, Synthesis of Advanced Nano Materials Using Advanced PLAL Technique and Their Applications in Energy Harvesting, Energy Storage and Photonic Devices, 2nd-ii Science Int'l conference 2021 on Recent Advances in Photonics and Physical Sciences, sponsored by SPIE, Faisalabad (March 29-30, 2021).
483. M.A. Gondal*,, Advance Method for Sterilization of Sulfate Reducing Bacteria from Produced Water in Oil Field, Workshop_Innovations in Water Treatment, Dhahran,Saudi Arabia(4th Feb, 2021).
484. M.A. Gondal*, Development of Third Generation Economical and Proficient Solar Cells, 1st Regional Virtual Symposium on Physics Advances 2020 Bahrain (28 – 29 June 2020).
485. M.A.Gondal* , Fabrication of Cost Effective and Efficient Dye Sensitized and Single Crystals Perovskite Solar Cells, KAUST Research Conference on Emerging Concepts in Solar Energy Conversion – from Computation to Implementation, Thawal (10-12 Feb, 2020).
486. M.A. Gondal*, Synthesis of Novel Nanocomposites Using Advanced Pulsed Laser Ablation Technique for Renewable Energy Harvesting, Energy Storage and Water Decontamination, AICNano2020: The Arab International Conference and Exhibition on Nanotechnology 2020 (Kuwait City, Kuwait, March 17-19, 2020).
487. M.A. Gondal*, M. Younas, M.A. Dastageer, Development of Single Crystals Perovskite Solar Cells Using ITC Method and Their Characterization, The Sharjah International Conference on Physics of Advanced Materials (SICPAM)), (Sharjah, United Arab Emirates 23 to 25 March, 2020).
488. U. Baig, A. Hawsawi, M.A. Gondal, M.A. Dastageer, W.S. Falath, Laser Induced Anchoring of Nickel oxide Nanoparticles on Graphitic Carbon Nitride Nano Sheets Using Advanced Pulsed Laser Ablation in Liquid Technique for Efficient Photocatalytic Degradation of Organic Pollutants under Visible Light Irradiation, 6th International Conference on Nanotechnology, Nanomaterials & Thin Films for Energy Applications, Kuala Lumpur, Malaysia.
489. M. Hasan, M. A. Gondal*, T. F. Qahtan and Nawal abbas (2019), Light responsive supercapacitor as energy harvesting and energy storage device using PLAL method, International Conference on 3rd Generation photovoltaic technologies and beyond, Thawal (12-14th Feb 2019).
490. M. A. Gondal* (2019) Fabrication of Single Crystal Perovskite Solar Cells and Quantum Dot Co-Sensitized DSSC, Solar Day Workshop, Dhahran (May, 2019).
491. N. Sharma, Y. Khajuria, J. Sharma, M. A. Gondal, V. Kumar, Y. Dwivedi, and Vivek K. Singh (2018) Spectroscopic Analysis of Rhizomes of Black Turmeric (Curcuma caesia), AIP Conference Proceedings 2006, 030036 (2018).
492. S.M. Altanany, M.A Gondal*, U Baig(2018) Synthesis and characterization of CuO/WO3 nanocomposite using hybrid method: Simple precipitation and pulsed laser ablation in liquids technique, AIP Conference Proceedings 1976 (1), 020014
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494. Abul Lais, M.A. Gondal*, F.F. Al-Adel (2018) CO2 photocatalytic reduction to fuels: Enhanced methanol selectivity by loading Ag on NaNbO3, Sixth American Institute of Physics (AIP) Conference Proceedings 1976 (1), 020013
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496. M. M Nasr, MA Gondal*, MM Ahmed, MM Yousif, NA Al-Muslet (2018) Direct spectral analysis of different gum Arabic samples using laser induced breakdown spectroscopy, AIP Conference Proceedings 1976 (1), 020025.
497. M. A. Gondal*, U Baig, MA Dastageer, M Sarwar (2017), Determination of elemental composition of coffee using UV-pulsed laser induced breakdown spectroscopy, AIP Conference Proceedings 1742 (1), 030007.
498. M.A. Gondal* (2018- invited talk) Noninvasive and cost effective method for treatment of HeLa Cancer Cells Using Facile Synthesized Pure and Ag Loaded WO3 Nanoparticles, MIT Hacking medicine in Saudi Arabia, Riyadh (22-24 December, 2018).

499. M. A. Gondal* and A. M. Ilyas (2018) Synthesis of Quaternary (ZnO/TiO2/CdS/SiC) Nano-composites Using Advanced Pulsed Laser Ablation Technique, International Conferenvce on New Vision in Clay Science (11-14 June, 2018) Urbana Champaign.
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502. 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).
503. 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).
504. M. A. Gondal*, M.A. Dastageer (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).
505. 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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510. 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.
511. 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), Riyad (17th April, 2016)
512. M.A. Gondal*, Y. Habibullah, U. Baig, L. Oloore, Laser induced Breakdown spectroscooy of various Tea Brands , Fifth Saudi International Meeting on Frontiers of Physics -SIMFP 2016 (16-18 February) Jizan.
513. G. Kwon, D. Panchanathan1, M. A. Gondal*, G. H. McKinley, K. K. Varanasi Visible-light–responsive TiO2 surfaces for efficient separation of brine-oil mixtures, International Conference on Physics and Chemistries at Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
514. T.F. Qahtan, M.A. Gondal*, U. Baig, M.A. Dastageer , L. Oloore, 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).
515. M.A. Gondal*, 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).
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Leadership in Research Projects (Completed or under Progress)

1. **CO- Investigator,** Development of advanced narrow-gap chalcogenides for renewable energy integration in building constructions using laser and AI-based techniques, (1.1.2024-31.12.2024)
2. **Co-Investigator, Development of Thermoelectric Generators on Flexible Substrates for Wearable Systems (Phase II)** (25/02/23 → 1/01/24).
3. **Co-Investigator,** Application of Artificial Intelligence Techniques for The Prediction of Soil Unconfined Compressive Strength (UCS) based on Laser Induced Breakdown Spectroscopy. (1/10/22 → 30/09/23).
4. **Co-Investigator ,** Development of highly efficient Peltier cooling thermoelectric materials for building constructions using advanced laser techniques supported by computational Intelligent methods (1/01/23 → 30/12/23)
5. **Principle Investigator,** Development of Advanced Catalysts for Hydrogen Production using Hydrocarbons as Feed Stocks (1.1.2024-31.12.2024)
6. **Principle Investigator,** Development of Renewable Energy Devices for Energy Harvesting, **UK Challenge Fund,** joint with University of Exeter funded by British Government (April 2022- December 2023).
7. **Principle Investigator, Hydrogen Consortium, Project # H_2FC2305** Development of Advanced Catalysts For Hydrogen Production Using Hydrocarbons As Feed Stocks (April 2023- April 2025)
8. **Principal Investigator**, **KACARE211-RFP-11**, Development of Renewable Energy Devices for Energy Harvesting (third generation solar cells, Thermoelectric, Energy Storage (Super-Capacitors) and Photocatalytic Driven Water Treatment (1.11.2021-23.11.2022).
9. **Principal Investigator, Project # INHE 2211,** All Solid-state MAPbI3-xBrx Perovskite-based Integrated Light Harvesting and Energy Storage Supercapacitor with Polymer Gel Electrolyte (1.4.22-1-7-23)
10. **Principal Investigator, INHE 2210,** Electrochemical - Supercapacitor for Energy Storage (in progress)

11. **Principal Investigator, KACARE182-RFP-02**, Fabrication of Single Crystal Perovskite Solar Cells and Quantum Dot Co-Sensitized DSSC (04/03/2019- 03/03/2020)
12. **Distinguished Professorship Award DUP22101 (Sep 2022- Sep 2025).**
13. **Principal Investigator, POC20103,** Development of a photocatalytic system for the Disinfection of Sulfate Reducing Bacteria from Produced Water in Oil Fields (June 2021- April 2022).
14. **CO- Investigator, Project # INCB2216** Application of Artificial Intelligence Technique for analysis of concrete samples (01/10/22-30/09/23)
15. **CO- Investigator, Project # INCB2104** Assessment/Monitoring: Innovative inspection of concrete using laser ---- (01/7/21-31/12/22)
16. **Principal Investigator, Project # DF201018,** Design and fabrication of highly efficient thermoelectric renewable energy harvesting chalcogenide materials using advanced laser techniques supported by DFT (April 2021- April 2023)
17. **Principal Investigator, Project # DF191032**, Design and Fabrication of Novel Photo-Bioelectrochemical fuel Cells for Direct Electricity Production by Harvesting Light Energy (Sept 2020 -Sep2023).
18. **Principal Investigator, RG181002,** Fabrication of Symmetric and Asymmetric hybrid Super Capacitors based on Nano sized metal oxides, conducting polymers and Carbon derivatives, synthesized using Field Assisted Pulsed Laser Ablation in Liquid Technique, (April 2019- April 2022).
19. **Principal Investigator, DISC1801**, Fabrication of Advanced Visible Light Driven Photo-Catalytic Membranes Using Nano-Engineered Semiconducting Materials for the Degradation of Hazardous Organic Pollutants from Water (15/2/19 – 15/2/22).
20. **CO- Investigator**, Project # **DF191020** Development of Transparent and Scratch P ... (01/04/2020- 01/02/2023)
21. **Principle Investigator, KACARE182-RFP-02**, Development of Renewable Energy Devices/Systems for Energy Harvesting (Solar cells, thermoelectric devices), Energy Storage (Super Capacitors), Electrodynamic Dust Shield and Water Treatment (1st March 2019-2021).
22. **Principal Investigator, Internal project # DISC1505,** Development of Novel Nano-Engineered Surfaces for Efficient Oil-Water Separation and disinfection of Sulfate Reducing Bacteria (1 September 2017 – 30 September 2020).
23. **Distinguished Professorship Award DUP18101 (Sep 2019- Sep 2022).**
24. **Principal Investigator, Internal project # DISC1504,** Development of Efficient Water Purification Process for Removal of Hazardous Environmental Pollutants from Waste Water Using Advanced Nanocomposite Photo-Catalysts (1 April 2018 – 30 September 2021)
25. **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).
26. **Principal Investigator, Internal project # RG-161002,** Development of Perovskite and Dye Sensitized Solar Cells using Nano-engineered Pure, Doped and Composite Semiconducting Materials Synthesized by Pulsed Laser Ablation for Enhanced Efficiency (April2017 – September 2020).
27. **Principal Investigator, Internal project # IN161001, Distinguished Professorship Award** (September 2010- Sept 2019).
28. **Principal Investigator, Internal project # Rg1421-1 & Rg1421-2,** Laser Induced Breakdown Spectrometer for Trace Elemental Analysis of Food and Cosmetic Products (September 2015- November 2018).
29. **Principal Investigator, NUS-KFUPM Project # NUS 15109** Laser induced photocatalytic removal of organic pollutants from water using nano-structured metal oxides (April 2016-Aug 2019).
30. **Principal Investigator, Internal project #** IN141024, Book project entitled: Novel Bismuth Oxyhalide based Materials and their Applications (May 2015-April 2017).
31. **Co- Investigator Internal project # Rg 1405-1 & Rg 1405-2,** Pulsed laser deposited Bismith telluride Thin films Study for Thermoelectric Applications (March 2015-december 2017).
32. **Principal Investigator,** # MIT-11109, 11110(MIT project number: 6926440/6926441), Remediation of Water Produced in Resource Extraction (2012- Aug 2014) joint with MIT.
33. **Principal Investigator,** # MIT-13103,13104 (MIT project number: 6926440/6926441) (Remediation of Water Produced in Resource Extraction (Sep 2014 - Aug 2017) joint with MIT.
34. **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 2017).
35. **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).
36. **Principal Investigator Internal project # Rg1311-1 & Rg1311-2,** Synthesis of nanoalloys and nanocomposites using pulsed laser ablation in liquids (May 2013- Sep 2016).
37. **Distinguished Professorship award IN161001 (sep 2010- sep 2019).**
38. **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).
39. **Principal 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).

40. **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).
41. **Co-Investigator NSTP (National Science and Technology Plan) Project # 10—NAN1386,** Lanthanide-doped Oxide Nanoparticles Multi-modal Molecular Imaging Agents (sept 2011-Feb 2014).
42. **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).
43. **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).
44. **Principal Investigator, Internal project # Rg1011-1 & Rg1011-2,** Photo-catalytic conversion of carbon dioxide into methanol using nanocatalysts (Oct 2010- March 2013).
45. **Principal Investigator, SABIC# 090023** Pulsed Laser Ablation for Synthesis of Nanostructured ZnO and ZnO_2 (March 2009-september 2010 , completed).
46. **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).
47. **Co-investigator**, MIT-10110 Design and manufacturing part III (march 2010-2011).
48. **Co-investigator**, MIT-10109 PV water pumping-part IV III (Feb 2012-Feb. 2014).
49. **Principal investigator, Distinguished professorship award, IN100038, (2010-till date) and IN131001.**
50. **Co-Investigator, IN# 101022** Nanocomposite materails co-polymers oragnomodified clay (may 2011-- may 2014).
51. **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.
52. **Co-Investigator, KACST** # DRP-4-25 Development of Technologies For Deep Desulfurization of Fuel Oils (May 2010, June 2013)
53. **Principal Investigator, KACST # 28-40,** Disinfection of Contaminated Water by Laser Induced Photo-catalysis Process using Semiconductor Catalysts. (Jan 2009- Jan2011).
54. **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).
55. **Co-Investigator, FT# 100034** Laser nanomaterials Phenol Detection (May 2011- 2012- January 2012).
56. **Co-Investigator, SABIC# 090020** (March 2009- October 2010) Removal Of Methyl Tertiary Butyl Ether (MTBE) From Water Using Laser Based Photo-Oxidation Process.
57. **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).
58. **Co-Investigator, Internal project # IN090025** (April 2009-april 2012) Laser Approach to Metal Nanoalloys, Its Optimization & Search for Novel Alloy Nanostructures materials .
59. **Principal Investigator, Sabic project # SABIC - 07004** (2007-2009)
    Laser induced photo-catalytical removal of phenol for waste water treatment .
60. **Principal-Investigator, internal project# In-080401** (2008-2011).
    Development of LIBS spectrometer for various applications (2008-2011).
61. **Principal Investigator, Sabic project # SABIC - 2005/11**
    Laser Sensor For Detection Of Ozone (started on Oct 2005, ended May 2007).
62. **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).
63. **Principal Investigator, Sabic project # 2000/ft-14**
    In situ detection of SF_6 leaks in power systems using laser, (duration 18 months, started on 1.12.2000, completed on 31.12.2002).
64. **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).
65. **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).
66. **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).
67. **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).

68. **Principal Investigator, Client Funded Project# SQ 2489**
Monitoring of air pollutants (Total Organic Carbon, NO_2, NO, SO_2 CO_2, CO) in and around the premises of Bitumat plant at Dammam". (One-month duration, project completed successfully in 1997).
69. **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).
70. **Co-Investigator,, RI Project #12043. (Five years duration, 1992-1997).**
Investigation of Laser Excited Alkaline Earth Metal Atoms".
71. **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.
72. **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.

Editorial Activities, Conference Organization and Keynote Speaker:

1. **Member Editorial Board** , Journal of Nanoscience Research
https://journalofnanotechnology.com/journal/editorial_board_member/Mohammed-Ashraf-Gondal/King-Fahd-University-of-Petroleum-and-Minerals-(KFUPM)/114
2. **Associate Editor,** Journal of Sensors and Instrumentation http://uscip.org/JournalsDetail.aspx?journalID=42
3. **Member Editorial Board,** Arabian Journal of Science and Engineering (AJSE). Springer, (ISSN 1319-8025), http://www.editorialmanager.com/ajse-sci/**.**
4. **Member Editorial Board,** Journal of Nanochemistry and Nanotechnology https://scienceforecastoa.com/Journal_Related/Journal_Pages/JournalEditorialBoard.aspx?JId=J1030_SJNN
5. **Member Editorial Board, International** Journal of Photo-energy http://www.hindawi.com/journals/ijp/editors
6. **Editorial Board Member**, International Journal of Spectroscopy, ISN # 1687-9449; e-SN # 1687-9457. http://www.hindawi.com/journals/ijs
7. **Editorial Board Member**, Journal of Engineering , ISSN: 2314-4912 (Print) ISSN: 2314-490(Online); http://www.hindawi.com/journals/je/workflow/
8. **Member Editorial Board,** Research Journal of Environmental and Earth Sciences, http://www.maxwellsci.com/jp/editor.php?jid=RJEES
9. **Member Editorial Board,** Research Journal of Applied Sciences, Engineering and Technology, http://www.maxwellsci.com/jp/editor.php?jid=RJEES
10. **Member Editorial Board,** INTERNATIONAL JOURNAL OF NANO SCIENTIFIC NETWORKS AND NANOTECHNOLOGY,https://helicsgroup.net/journal/member_details/NanoScientificNetworksandNanotechnology/8/22
11. **Member Technical Committee, EMN Meeting on Metallic Glasses: Energy Materials, Nanotechnology, Kuala Lumpur Malyisa**, 12-16th Septemebr 2016). http://emnmeeting.org/Metallic-Glasses/committees/
12. **Member Technical Committee, Second International Conference on Electro-optics and image processing (ICOIP 2015)** Chicago, Illinois, USA, 2-4th july 2015). http://www.icoip.org/news.html
13. **Member Scientific Committee, IEEE 19th International Conference on Smart Communities Improving Quality of Life using ICT IoT and AI** (KSU, Mariette, GA USA ,19-11, December 2018).
14. **Member Scientific Committee , International Workshop on "Optics and Photonics", Riyad Saudi Arabia (21February, 2016).**
15. **Member Scientific Committee,16th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (Islamabad, October 08-10, 2018).
16. **Member Scientific Committee,14th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (October 9-11, 2017, Amman, Jordan.).
17. **Member Scientific Committee,13th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (UNC Charlotte, North Carolina, USA October 13-14, 2016).
18. **Member Scientific Committee,12h International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (Islamabad, 15-17 Dec, 2015).
19. **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).

20. **Member International Steering and Scientific Committee, 10th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,13)** IEEE sponsored (Cyperus,12-14 Dec, 2013).
21. **Member International Steering and Scientific Committee, 9th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,12)** IEEE sponsored (Istanbuhl,12-14 Dec, 2012 Turkey).
22. **Member Scientific Committee, International Conference on Atomic, Molecular and Optical Physics, Aljouf Saudi Arabia (29April -2nd may, 2015).**
23. **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).
24. **Member Program and Scientific Committee of 1st International Conference on Laboratory Technology (LABTECH)**, Manama, Bahrain (20 -22 October , 2008).
25. **Member International Program Committee ,** 2nd **International Conference on Instrumentation Control and Automation (ICA)** , November 15-17, 2011 at Bandung, West Java, **Republic of Indonesia.**
26. **Member International Steering Committee, International Symposium on Vacuum Science and Technology**, Islamabad, Pakistan (2-6 November , 2011).
27. **Member International Steering Committee, International Symposium on Vacuum Science and Technology**, Islamabad, Pakistan (1st -5 December, 2012).
28. **Member Program and Scientific Committee,** International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain.
29. **Member Program and Scientific Committee of 2nd International Conference on Laboratory Technology (LABTECH)**, Doha, Qatar, (October , 2011).
30. **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.
31. **Key Note Speaker,** International Conference on New Trends in Renewable Energy and Environment for 2030 Vision (ICNTREE 2023).
32. **Key Note Speaker,** Green Synthesis Method for Functional Nanomaterials using Pulsed Laser Ablation and Their Applications for Energy Harvesting, Energy Storage, Hydrogen and Photonic Devices, International Conference on Solar Energy Materials and Technology (ICSEMT-24-25 Novemeber 2022) Exeter, England.
33. **Key Note Speaker**, First International Conference on Energy, Thermofluids and Materials Engineering, ICETME 2021 (18 - 20 December 2021, (University of Biskra, Algeria, Dhaka University of Engineering & Technology, Bangladesh, Dokuz Eylül University, Izmir, Turkey).
34. **Key Note Speaker**, Advanced Functional materials preparation Using Pulsed Laser Ablation Technique for Renewable Energy Generation and Storage, 7th International Congress on Energy Efficiency and Energy Related Materials" Blue Lagoon, Fethiye / Mugla TURKEY (October 17-23, 2021)
35. **Invited Speaker,** Facile Synthesis of Pure and Ag Loaded WO3 Nano-catalysts for Photo-induced Killing of HeLa Cancer Cells, International Workshop on Nanomedicine – Development and Challenges, under COMSTECH, Islamabad (March 15 – 17, 2021).
36. **Invited Speaker,** Synthesis of Advanced Nano Materials Using Advanced PLAL Technique and Their Applications in Energy Harvesting, Energy Storage and Photonic Devices, 2nd-ii Science Int'l conference 2021 on Recent Advances in Photonics and Physical Sciences, **sponsored by SPIE**, Faisalabad (March 29-30, 2021).
37. **Invited Speaker**, Development of Third Generation Economical and Proficient Solar Cells: Dye Sensitized and Single Crystals Perovskite , 1st Regional Virtual Symposium on Physics Advances 2020 Bahrain (28 – 29 June 2020).
38. **Invited Speaker,** Development of Single Crystals Perovskite Solar Cells Using ITC Method and Their Characterization, The Sharjah International Conference on Physics of Advanced Materials (SICPAM)), (Sharjah, United Arab Emirates 23 to 25 March, 2020, postponed as corona pandemic).
39. **Invited Speaker,** Fabrication of Cost Effective and Efficient Dye Sensitized and Single Crystals Perovskite Solar Cells, KAUST Research Conference on Emerging Concepts in Solar Energy Conversion – from Computation to Implementation, Thawal (10-12 Feb, 2020).
40. **Invited Speaker,** The 7th International Conference on Optical, Optoelectronic and Photonic Materials and Applications, June13–17, 2016, Montréal, Québec, Canada.
41. **Invited Speaker,** International Conference on Physics and Chemistries of Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
42. **Invited Speaker,** M. A. Gondal (invited talk) Industrial Applications of Nanomaterials: For Oil production, solar energy harvesting, conversion of CO_2 into value added fuels and water purification, International Symposium on Nano education and Applications, COMSTECH, Islamabad (12-15 Decemebr, 2016).
43. **Invited Speaker**, 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).

44. **Invited Speaker,** 17th Photonics North, Otttawa (9-11th June , 2015)
45. **Invited Speaker, KAUST-KFUPM** Workshop on Solid-State Lighting, 2012 **(April 13-14),** Dhahran , Saudi Arabia.
46. **Invited Speaker, 3rd Saudi International Nanotechnolgy/ Nanophotonics Conference**, 2014 **(December 1-3),** KACST-KAUST-UCSB Riyadh, Saudi Arabia.
47. **Invited Speaker, KAUST-UCSB-NSF** Workshop on Solid-State Lighting, 2012 **(October 13-14),** (KAUST), Thuwal, Saudi Arabia,
48. **Invited Speaker, "**3rd International Nathiagali Summer College (INSC), on **Photovoltaic's"** (4-8th July, 2011) Pakistan.
49. **Invited Speaker,** International Conference on Oxide-based Materials and Nano Devices II, (Conference OE108, OPTO SPIE West), Photonic West, The Moscone Center, San Francisco, California United States 22 - 27 January 2011.
50. **Key Note Speaker,** International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain (October 25-27,2010).
51. **Key Note Speaker**, International Conference and Exhibition on Laboratory Technology, Kuwait, November 4-5, 2009.
52. **Key Note Speaker,** workshop on Laser Applications in Chemical Analysis and Oil Industry (27-28 April ,2008) Khartoum, Sudan.
53. **Distinguished Invited Speaker**, Laser Conference organized by World Academy for Laser Applications (WALA) Bahrain International Exhibition Centre. October 19-21, 2009.
54. **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).
55. **Key Note Speaker , 9th Symposium on analytical and environmental Chemistry, Baragali , Pakistan (July 24-26,2006).**
56. **Invited Talk, Fundamentals of Laser Induced Breakdown Spectroscopy, Women Degree College, King Faisal University, Dammam, January 25, 2009.**
57. **How to Improve Research and Development Program at University Level, Physics Department, March 16, 2008.**
58. **Laser based analytical techniques for various applications, Chemistry Department, ARARAQUARA, SP. Brazil, Oct 17, 2007.**
59. **Elemental analysis using Laser Induced Breakdown Spectroscopy, Chemistry Department, KFUPM, Nov 4, 2007.**
60. **Laser based sensors and their application, Physics Department, KFUPM, Nov, 2006.**
61. **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.**
62. **Effect of industrial pollution on environment and advanced optical techniques, Earth Science Department, KFUPM, 20 December, 2005.**
63. **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.**
64. **Laser application in environmental Sciences, Physics department, KFUPM, 24.September, 2005**
65. **LIDAR Monitoring Of Aerosols For Prediction Of Boundary Layer Heights, Phys Department, King Saud University, Riyadh, 7th June 2005.**
66. **Environmental issues and need for advanced (laser based) air monitoring techniques, Mechanical Eng. Deptt, KFUPM, 30th March 2004.**
67. **Global warming and its effects on humans, forest and climate, American Chemical Society Meeting, Gulf Meridian, Alkhobar, September 2004**
68. **Laser based photoacoustic spectrometry and its applications, Phys Deptt, KFUPM, 28th March, 2004.**
69. **Laser-induced Desulfurization of Oil and other aromatic compounds, Saudi Aramco January, 2004 & June 2005.**
70. **Laser production of high value hydrocarbons and high value organic products from petrol residue, Saudi Aramco, March 2003.**
71. **Methane Cracking for the production of higher hydrocarbons on 28 April 2003 at the LRS, CAPS, RI, KFUPM.**
72. **Detection of SF6 leaks in power systems using laser on 12 May 2003 at the LRS, CAPS, KFUPM.**
73. **Photoacoustic Spectroscopy for Trace Gas Analysis and Gas Leak Detection, Physics Department, Free University Berlin, Germany, 17.7.2002.**
74. **Lasers and their applications in every day life, Electrical Engineering Department, King Abdul Aziz University, Jeddah, Saudi-Arabia, 24.10. 2001.**
75. **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.**
76. **Laser sensors applications in agriculture, oil and industrial pollution Joint seminar R.I and Mechanical Engineering Department, KFUPM, 3.10 2000.**
77. **Light detection and ranging (LIDAR) system, Institute of Applied Physics, University of Bonn, Germany, 19.7.2000.**
78. **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.**

79. **Development of remote laser based sensors for environmental applications, center for Applied Physical Sciences, R.I, KFUPM, 15.2. 1999.**
80. **Applications of laser sensors for atmospheric studies, Applied Physics Deptt, Victoria University, Melbourne, Australia, 8.8.1997**
81. **Laser Remote Sensing and its Applications, Joint seminar R.I and Physics Department, KFUPM, 4.5 1997**
82. **Laser Applications in Medicine, King Fahd Teaching Hospital, Alkhobar, Saudi-Arabia. 25. 6. 96.**
83. **Oil and Gas Exploration using Laser Remote Sensors", Saudi-Aramco, Dhahran, Saudi-Arabia, 30. 6. 96**
84. **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**
85. **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).**
86. **Large scale collisional energy transfer in optically prepared atomic states of calcium, Institute of Applied Physics, University of Bonn, Germany (28.7.1995).**
87. **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).**
88. **Energy transfer in laser pumped calcium vapor, International Center for Theoretical Physics (ICTP), Trieste, Italy (21.7.1995).**
89. **Environmental applications of lasers", Division-II, R.I. Seminar was presented to experts from National Environmental Preservations Co. (BeeA'h). (31.10.1994).**
90. **Laser induced fluorescence studies of agricultural plants using lasers", Division-III, R.I., KFUPM (25.1.1994).**
91. **Laser remote sensing of leaks in gas pipelines, Division-II, R.I., KFUPM (30.11.1993).**
92. **Study of diffuse bands in alkali dimers", Division-II, R.I., KFUPM (28.1.1992).**
93. **Diode laser and its applications", Division-II (Proposal Seminar at Managerial Level) (February 1993).**
94. **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).

Short Courses/workshops Offered

- Assessment and Repair of Reinforced Concrete Structures: Principles and Applications, Laser Sensor, KFUPM. (May 10-14, 2008, 2009,2010,2012,2014,2016,2017).
- Practical Considerations for Insulation and Cables Materials and their Characterization Using Laser induced breakdown spectroscopy (LIBS) Techniques, KFUPM **(**July, 5- 9, 2008).
- 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).
- CO_2 conversion into methanol using laser induced photocatalysis, Dr. K. Hayat (2010-2011).
- Remediation of Water Produced in Resource Extraction, Dr. U. Baig (2014-2016)
- Synthesis of nano engineered materials for various applications in the filed of renewable energy, oil-water separation, wetting

nd non wetting surfaces, Dr. Talal Farhan Qahtan (2017-2020)

- Development of Third Generation Solar Cells, Dr. M..Younas (Jan 2020 – December 2020)

Ph.D. Thesis Supervision

S. No.	Student Name and Department	Thesis Title	Start Date	End Date	Role
1	Samavia Rafiq	Green Hydrogen production using self-synthesized spinal Oxides and Ferrites Electro-photocatalysts	2024	In Progress	Advisor
2	Bayan Baatiyyah	Fabrication and Characterization of Thin Film-based Energy Storage Devices Using Pulsed Laser Deposition System and Other Advanced Fabrication Techniques	2024	In Progress	Advisor
3	Riffah Alkhaldi	Characterizations of Modified Multi-spinel-oxides Nano-Materials for Green Hydrogen Production Supported with DFT	2023	In Progress	Co-Advisor
4	Ameerah	Synthesis of spinal oxides and other inorganic perovskite for energy storage	2024	In Progress	Advisor
5	Reem Al-Dakheel	Development of Laser Induced Breakdown spectrometer for Analysis of Biocompatible Samples	2018	Completed 2022	Advisor
6	Talal F Qahtan Physics Dept, KFUPM	Synthesis of wetting and non wetting surfaces for oil-water separation	2015	Completed Jan 2019	Advisor
7	Rasha Abdurabu S. AbuMusa Phsyics Dept, KSU Riyadh	Synthesis and applications of Nanocomposites Photocatalysts for treatment of Cancer Cell lines under Light irradiation	2016	Completed May 2019	Co-Advisor

8	M. Taureed Physics Dept, KFUPM	Calibration-free LIBS using Multivariate Hybrid Chemo-metrics: An Approach for Precise Quantitative Elemental Analysis of Solid Samples	2016	Completed May 2019	Advisor
9	Wafa Musa Al-Mujamammi Phsyics Dept, KSU Riyadh	Excited state dynamics of some conjugated polymer lasers	2016	Completed December 2017	Thesis reviewer and external examiner
10	Muhammad Younas Physics Dept, KFUPM	Fabrictaion of perovskite and dye sensitized solar cells	2016	Completed 2020	Advisor
11	Yakubu Sani Wudil Physics Dept, KFUPM	Fabrication of thermoelectric films using Pulased laser depsotion (PLD) system	2017	Completed 2021	Advisor
12	M. Hasan Physics Dept, KFUPM	Fabrication and characterization of symmetric and asymmetric super capacitors using novel electric field assisted pulsed laser ablation in liquid technique for the first time	2018	Completed 2022	Advisor
13	I. K. Poppola, Phys KFUPM	Fabrication of Novel All-Solid-State Perovskite Electrochemical Cells for Energy Harvesting and Energy Storage	2018	2021	Advisor
14	Saeed Baqaraf Phys KFUPM	Development of Electrodynamics Dust Screening System for self cleaning of solar cells	2018	Completed 2022	Advisor

15	Luqman Oloore Phys KFUPM	Fabrication of Novel Perovskite-Based Bilayer-Electrodes Electrochemical Capacitor for Efficient Energy Storage	2018	Completed 2021	Advisor
16	Mostafa Zeama	Study of Charge transfer in Photocatalytic reduction of CO2	2019	completed	Thesis Committee Member
17	FATAI AYOFE LIADI	Elemental Analysis of Bulk Samples using 2.5MeV Neutron Inelastic Scattering (NIS)	2019	Completed 2022	Thesis Committee Member
18	Amar Kamal Mohamedkhair	Hydrogen production	2019	In progress	Thesis Committee Member
19	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
20	S.S.Al-Jaroudi, Chemistry Deptt, KFUPM	Syntheisi,characterization and evaluation of Anticancer Activities of some gold complexes with Diamine Phosphine and Dithiocarbamte Ligands	2012	2014	Thesis Committee Member
21	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
22	Tawfik Abdo Saleh Chemistry Department, KFUPM	Synthesis of carbon nanotube based composites and thier applications	2010	2012	Co advisor
23	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

24	Mohammed Mahdi KFUPM and Natural Science Departments, Riyadh College of Dentistry and Pharmacy P.O. Box 321815 Riyadh 11343, Saudi Arabia	Plasma Diagnostics using LIBS and its Applications in environmental samples analysis	2008	2011	Advisor
25	Khizar Hayat Chemistry Department, KFUPM	Synthesis of nano structure materials and applications in laser induced photo-catalysis	2008	2011	Co-Advisor
26	M. Atif Chemistry Department, KFUPM	Synthesis of new binuclear Cu I mixed legend dye amine phosphine complexes and their applications	2007	2010	Committee Member
27	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
28	A. Hameed Chemistry Department, KFUPM	Applications of Photo-catalysis in conversion of methane into methanol using laser	2003	2005	Co-Advisor
29	Biswanath Mitra Applied Physics, Victoria University, Melbourne Australia	Remote detection of laser generated ultrasonic by fiber optic Interferometer	1996	1999	External Examiner

M.S. Thesis Supervision

S. No.	Student Name and Department	Thesis Title	Start Date	End Date	Role
1	Ahmar Ali	Fabrication of High-Performance Perovskite Oxide Based Hybrid Supercapacitors for energy storage applications	2023	Completed 2024	Advisor

2	Imam Abdulrahman	Synthesis, fabrication, and performance evaluation of a Self-powered, heterostructure, metalhalide Perovskite-based, dual-faced photodetector	2022	Completed 2024	Advisor
3	Muhamad Yudatama Perdana	Synthesis and characterization of cement-based composites as electrode material for cost-effective supercapacitor fabrication device	2023	Completed 2024	Advisor
4	Shalabi Ahmed Faisal	Assessment of rebar corrosion in reinforced concrete structures using laser induced breakdown spectroscopy	2022	Completed 2023	Co-Advisor
5	Osama A. Al-Najjar	Assessment of some physical and mechanical properties of natural and stabilized soils using laser-induced breakdown spectroscopy (libs)	Dec 2020	Completed 2022	Co-Advisor
6	Ibrahim Olatunji Yusuf	Development of solar driven water purification system using functionalized nanocomposite photo-catalysts synthesized locally	2019	2020	Advisor
7	Abduljelili Popoola	Modifications of hybrid perovskite materials for robust and efficient energy applications	2019	2020	Advisor
8	H.A. Altamimi	Rapid detection of nutrients by laser-induced breakdown spectroscopy in spinach plant irrigated with different quality of water	2019	In Progress	Co-Advisor
9	Lutfi Mulyadi Surachman	Development of laser-induced breakdown spectroscopy technique for nalysis of fish samples collected form the rabian Gulf	2016	2018	Advisor
10	I. K. Poppola, Phys KFUPM	Design and fabrication of Perovskite solar cells	2015	2018	Advisor
12	Abu Lais, Phys KFUPM	Adavanced materials for carbon dioxide reduction into high value products	2016	2018	Advisor
13	Mohsin Sarwar, Phys KFUPM	Detection of heavy metals in human tissues using Laser indcuced breakdown spectroscopy	2016	2017	Advisor
14	REDHWAN ABDO MOQBEL Phys KFUPM	Syntheis and characterization of GaAs and other semiconducting materials using PLAL technique	2016	2019	Advisor
15	M. ALTAHIR	Facile syntheisi of metal	2015	2017	Co-advisor

	SULIMAN, Chem. KFUPM	oxide nanocrystals for removal of pesticieds and hebicides form water			
16	Abduliken Bake	Fabrication of dust repellant surfaces and their characterization	2016	2017	Co-advisor
17	Adesida Kollopu, Chem. KFUPM	Synthesis and characterization of graphitic carbon nitride (g-C3N4) based nanostructured composites removal of organic pollutats from water	2014	2015	Co-Advisor
18	Y.Habibullah,Phys KFUPM	Laser induced breakdown spectroscopy applications for analysis of food products	2014	2016	Advisor
19	A.M.Ilyas,Phys KFUPM	Dye sensitized solar cells using self synthesized nano semiconductor materials	2014	2015	Advisor
20	F. Tasnim,Phys KFUPM	Synthesis and characterization of unique nanomaterails using pulsed laser ablation in liquids	2014	2015	Advisor
21	L.Oloore, Phys, KFUPM	Syntheisi of nanocatalysts for CO_2 conversion into high value hydrocarbons like methanol	2015	2015	Advisor
22	Yasin Maganda, Physics Department KFUPM	Analysis of cosmetic prodcuts using self developed time resolved ICCDLaser induced breakdown spectrometer	2013	2013	Advisor
23	Talal Al-Qahtan, Physics Department KFUPM	Synthesis of nano alloys using pulsed laser ablation of organometalics	2013	2013	Advisor
24	Sadullah Subki, Physics Department KFUPM	Synthesis of hydrophobic and hydrophlic surfaces using spray gun	2013	2013	Advisor
25	A.J. Al-Nehmi, Civil Enginering Department KFUPM	Assessment of Chloride and Sulfate Concentration in Concrete Using Laser-Induced Breakdown Spectroscopy (LIBS)	2010	2012	Co-Advisor
26	Ahmed WaseemViqas, EE Department KFUPM	Plasmon-enhanced white light generation in phosphor based GaN LEDs	2014	2013	Committee Memeber
27	S.S. Rashid, EE Department KFUPM	Active plasmonic:surface modulation	2013	2011	Committee Member
28	A. M. H.Y. Hendi, Physics Department KFUPM	Synthesis and characterization of Bi_2O_3 nano-powder produced by microwave-assisted combustion method	2012	2012	Committee Member
29	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

30	K. Drmoosh, Physics Department KFUPM	Synthesis of nano structure metal oxides using laser ablation process	2008	2010	Advisor
31	Mr. A. Al-Aswad, Physics Department KFUPM	Fabrication of heat mirrors using electron beam evaporation method	2007	2008	Committee Member
32	Mr. M.N. Sayeed, Chemistry Department, KFUPM	Laser induced phenol degradation using semiconductor catalysts	2006	2007	Advisor
33	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
34	J. M. Mohammed Al-Maraschi, Department of Physics and Astronomy, King Saud University Riyadh	Generation of Discretly tunable lasers form some gases and liquids using stimulated Raman scattering(SRS)	2005	2006	Reviewer and External examiner
35	Ali Mohammad Alshehri, Department of Physics and Astronomy, King Saud University Riyadh	Quantitative elemental determination of industrial alloys by Laser Indused Breakdown Spectroscopy (LIBS	2005	2006	Reviewer and External examiner
36	Reem Al-Tuwirqi. Physics Department, King Abdul Aziz University, Jeddah	Spectroscopic Analysis of Some Diatomic Molecules	1995	1996	Reviewer and External examiner
37	Ibrahim A. Al-Hadhoud i. Physics Department, King Abdul Aziz University, Jedda	Comparative study of empirical internuclear Potential Functions of some diatomic molecules	1996	1997	Reviewer and External examiner
38	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
39	Ensaf Awda Al-Jaraddah, Physics Department, King Abdul Aziz University, Jeddah	Analysis and simulation of diatomic molecular spectra	2001	2002	Reviewer and External examiner
40	Amany Ali Al-Suraihi, Physics Department, King Abdul Aziz University, Jeddah	Comparative study of five parameter potential energy functions of diatomic molecules	2001	2002	Reviewer and External examiner
41	Mohammed Tawati, Electrical engineering Department, AL-Fateh University Tripoli, Libya	Experimental and Theoretical Studies of N_2 Laser	l 990	1991	Advisor
42	Jamal Shebani Eelctrical engineering	Small Signal Gain Measurements in a locally	1989	1991	Co-Advisor

	Department, AL-Fateh University Tripoli, Libya, April 1991	developed CO2 Oscillator/Amplifier System			

Senior and Capstone 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-	1	Co-Advisor with Dr. B.S. Yilbas	Term 021

	metal piece interaction, ME 411			
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 photoacosutic technique using CO_2 laser, PHYS 407	1	Advisor	Term 011
21	Trace gas analysis and gas leak detection using photoacoustoic spectroscopy, Student name: Fahd Al-Subahi	1	Advisor	Term 011

Mentorship of Undergraduate Student for 8th Under Graduate Research Competition (organized by Abu Dhabi university and sponsorred by Exxon Mobile (June 2021)

- **Mohamed Z. Kuban won third position** on project entitled "Mechanically Robust Cost Effective Visible Light Active Multi-Functional Membrane for Oil-Water Remediation"

Mentorship of High School Saudi Girls for ISEF, Moheba and Ibdah Olympiads

- 7 girls and 4 boys got training and mentorship (2022) applied for IBDA Competition and waiting for results
- 7 girls got training and mentorship (2021) and were selected at reginal levals and 4 won prizes at national level Competition and 3 are going to contest in ISEF, USA
- 7 girls got training and mentorship and four girls won grand prizes and top positions in the Kingdom in Moheba 2020 competition in Riyadh.
- 6 girls and one male student got training and mentorship. One male student and five girls Saudi national won Moheba award form eastern province 2020 competition.
- International Science and Engineering Fair (ISEF) 2019 USA (Three Girls won prizes in ISEF)
- Seven girls trained by us won Ibda prizes competition out of 83000 students (total winners =108 nationwide) 2018
- Five Girls won at National level competition held in Riyadh to go to USA from 108 students.

Courses Taught:

I have taught several course as mentioned below:

Physics 101, 102 in large lecture format (LLF-80 students) and high level courses such as Phys 497, Phys 498, Phys 503, Phys 701, Phys 702, Phys 499, Phys 599, Phys 699.

and developed several courses including concentration courses and short courses. 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, Civil Engineering Department, Women College Dammam and Other Iinternational Uuniversities. The details of the Ph.D, Master thesis and Ssenior Pprojects are described on earlier pages in the Resume.

Courses taught at Post Graduate Center For Elctro-optics Tripoli

Year	Graduate Level (master) 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. Seven 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 synchronization with the SNTP (Strategic 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 Nature Communications, Nature Scientific Reports, Applied Materials and Interfaces, J. Energy Storage, Applied Materials, ACS Applied Energy Materials, 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 Materials, 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 International, International Quantum Electronics Conference (IQEC) and other regional conferences. 20 Patents on my latest inventions have been issued and more than 30 published by US patent office. My research work has been cited in various international journals and got over 9550 Citations with H index 50 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 of high repute. I have not only worked in my major field of Physics but also contributed reasonably well to interdisciplinary fields such as Nanotechnology, Renewable Energy, Oil Water Separation by Developing Wetting and Non Wetting Surfaces, 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, SASO 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 of high repute like Nature communications, nature scientific reports, NPG Clean water, Advanced Functional Materials, Applied Optics, Sensor and actuators, Laser and Optics in Engineering Optical and Quantum Electronics, Energy and Fuels, Talanta, Analytical Chemsitry, J. Hazardous Materils, E.J. Physics, Applied Spectroscopy, ACS Nano, nature communication, nature desalination, etc and for KACST, KFUPM proposals and other Qatar Foundation and many international universities.I have been on different occasion's 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 and Indian Universities. 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.

Editorial Activities, Conference Organization and Keynote Speaker:

1. **Member Editorial Board** , Journal of Nanoscience Research https://journalofnanotechnology.com/journal/editorial_board_member/Mohammed-Ashraf-Gondal/King-Fahd-University-of-Petroleum-and-Minerals-(KFUPM)/114
2. **Associate Editor,** Journal of Sensors and Instrumentation http://uscip.org/JournalsDetail.aspx?journalID=42
3. **Member Editorial Board,** Arabian Journal of Science and Engineering (AJSE). Springer, (ISSN 1319-8025), http://www.editorialmanager.com/ajse-sci/**.**
4. **Member Editorial Board,** Journal of Nanochemistry and Nanotechnology https://scienceforecastoa.com/Journal_Related/Journal_Pages/JournalEditorialBoard.aspx?JId=J1030_SJNN
5. **Member Editorial Board, International** Journal of Photo-energy http://www.hindawi.com/journals/ijp/editors
6. **Editorial Board Member**, International Journal of Spectroscopy, ISN # 1687-9449; e-SN # 1687-9457. http://www.hindawi.com/journals/ijs
7. **Editorial Board Member**, Journal of Engineering , ISSN: 2314-4912 (Print) ISSN: 2314-490(Online); http://www.hindawi.com/journals/je/workflow/
8. **Member Editorial Board,** Research Journal of Environmental and Earth Sciences, http://www.maxwellsci.com/jp/editor.php?jid=RJEES
9. **Member Editorial Board,** Research Journal of Applied Sciences, Engineering and Technology, http://www.maxwellsci.com/jp/editor.php?jid=RJEES
10. **Member Editorial Board,** INTERNATIONAL JOURNAL OF NANO SCIENTIFIC NETWORKS AND NANOTECHNOLOGY,https://helicsgroup.net/journal/member_details/NanoScientificNetworksandNanotechnology/8/22
11. **Member Technical Committee, EMN Meeting on Metallic Glasses: Energy Materials, Nanotechnology, Kuala Lumpur Malyisa**, 12-16th Septemebr 2016). http://emnmeeting.org/Metallic-Glasses/committees/
12. **Member Technical Committee, Second International Conference on Electro-optics and image processing (ICOIP 2015)** Chicago, Illinois, USA, 2-4th july 2015). http://www.icoip.org/news.html
13. **Member Scientific Committee, IEEE 19th International Conference on Smart Communities Improving Quality of Life using ICT IoT and AI** (KSU, Mariette, GA USA ,19-11, December 2018).
14. **Member Scientific Committee , International Workshop on "Optics and Photonics", Riyad Saudi Arabia (21February, 2016).**
15. **Member Scientific Committee,16th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (Islamabad, October 08-10, 2018).
16. **Member Scientific Committee,14th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (October 9-11, 2017, Amman, Jordan.).
17. **Member Scientific Committee,13th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (UNC Charlotte, North Carolina, USA October 13-14, 2016).
18. **Member Scientific Committee,12h International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (Islamabad, 15-17 Dec, 2015).
19. **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).
20. **Member International Steering and Scientific Committee, 10th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,13)** IEEE sponsored (Cyperus,12-14 Dec, 2013).
21. **Member International Steering and Scientific Committee, 9th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,12)** IEEE sponsored (Istanbuhl,12-14 Dec, 2012 Turkey).
22. **Member Scientific Committee, International Conference on Atomic, Molecular and Optical Physics, Aljouf Saudi Arabia (29April -2nd may, 2015).**
23. **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).
24. **Member Program and Scientific Committee of 1st International Conference on Laboratory Technology (LABTECH)**, Manama, Bahrain (20 -22 October , 2008).
25. **Member International Program Committee ,** 2nd **International Conference on Instrumentation Control and Automation (ICA)** , November 15-17, 2011 at Bandung, West Java, **Republic of Indonesia.**
26. **Member International Steering Committee, International Symposium on Vacuum Science and Technology**, Islamabad, Pakistan (2-6 November , 2011).
27. **Member International Steering Committee, International Symposium on Vacuum Science and Technology**, Islamabad, Pakistan (1st -5 December, 2012).
28. **Member Program and Scientific Committee,** International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain.

29. **Member Program and Scientific Committee of 2nd International Conference on Laboratory Technology (LABTECH)**, Doha, Qatar, (October , 2011).
30. **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.
31. **Key Note Speaker,** International Conference on New Trends in Renewable Energy and Environment for 2030 Vision (ICNTREE 2023).
32. **Key Note Speaker,** Green Synthesis Method for Functional Nanomaterials using Pulsed Laser Ablation and Their Applications for Energy Harvesting, Energy Storage, Hydrogen and Photonic Devices, International Conference on Solar Energy Materials and Technology (ICSEMT-24-25 Novemeber 2022) Exeter, England.
33. **Key Note Speaker**, First International Conference on Energy, Thermofluids and Materials Engineering, ICETME 2021 (18 - 20 December 2021, (University of Biskra, Algeria, Dhaka University of Engineering & Technology, Bangladesh, Dokuz Eylül University, Izmir, Turkey).
34. **Key Note Speaker**, Advanced Functional materials preparation Using Pulsed Laser Ablation Technique for Renewable Energy Generation and Storage, 7th International Congress on Energy Efficiency and Energy Related Materials" Blue Lagoon, Fethiye / Mugla TURKEY (October 17-23, 2021)
35. **Invited Speaker,** Facile Synthesis of Pure and Ag Loaded WO3 Nano-catalysts for Photo-induced Killing of HeLa Cancer Cells, International Workshop on Nanomedicine – Development and Challenges, under COMSTECH, Islamabad (March 15 – 17, 2021).
36. **Invited Speaker,** Synthesis of Advanced Nano Materials Using Advanced PLAL Technique and Their Applications in Energy Harvesting, Energy Storage and Photonic Devices, 2nd-ii Science Int'l conference 2021 on Recent Advances in Photonics and Physical Sciences, sponsored by SPIE, Faisalabad (March 29-30, 2021).
37. **Invited Speaker**, Development of Third Generation Economical and Proficient Solar Cells: Dye Sensitized and Single Crystals Perovskite , 1st Regional Virtual Symposium on Physics Advances 2020 Bahrain (28 – 29 June 2020).
38. **Invited Speaker,** Development of Single Crystals Perovskite Solar Cells Using ITC Method and Their Characterization, The Sharjah International Conference on Physics of Advanced Materials (SICPAM)), (Sharjah, United Arab Emirates 23 to 25 March, 2020, postponed as corona pandemic).
39. **Invited Speaker,** Fabrication of Cost Effective and Efficient Dye Sensitized and Single Crystals Perovskite Solar Cells, KAUST Research Conference on Emerging Concepts in Solar Energy Conversion – from Computation to Implementation, Thawal (10-12 Feb, 2020).
40. **Invited Speaker,** The 7th International Conference on Optical, Optoelectronic and Photonic Materials and Applications, June13–17, 2016, Montréal, Québec, Canada.
41. **Invited Speaker,** International Conference on Physics and Chemistries of Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
42. **Invited Speaker,** M. A. Gondal (invited talk) Industrial Applications of Nanomaterials: For Oil production, solar energy harvesting, conversion of CO_2 into value added fuels and water purification, International Symposium on Nano education and Applications, COMSTECH, Islamabad (12-15 Decemebr, 2016).
43. **Invited Speaker**, 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).
44. **Invited Speaker,** 17th Photonics North, Otttawa (9-11th June , 2015)
45. **Invited Speaker, KAUST-KFUPM** Workshop on Solid-State Lighting, 2012 **(April 13-14),** Dhahran , Saudi Arabia.
46. **Invited Speaker, 3rd Saudi International Nanotechnolgy/ Nanophotonics Conference**, 2014 **(December 1-3),** KACST-KAUST-UCSB Riyadh, Saudi Arabia.
47. **Invited Speaker, KAUST-UCSB-NSF** Workshop on Solid-State Lighting, 2012 **(October 13-14),** (KAUST), Thuwal, Saudi Arabia,
48. **Invited Speaker, "**3[6th] International Nathiagali Summer College (INSC), on **Photovoltaic's"** (4-[8th] July, 2011) Pakistan.
49. **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.
50. **Key Note Speaker,** International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain (October 25-27,2010).
51. **Key Note Speaker**, International Conference and Exhibition on Laboratory Technology, Kuwait, November 4-5, 2009.
52. **Key Note Speaker,** workshop on Laser Applications in Chemical Analysis and Oil Industry (27-28 April ,2008) Khartoum, Sudan.
53. **Distinguished Invited Speaker**, Laser Conference organized by World Academy for Laser Applications (WALA) Bahrain International Exhibition Centre. October 19-21, 2009.
54. **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).

55. **Key Note Speaker,** 9th Symposium on analytical and environmental Chemistry, Baragali , Pakistan (July 24-26,2006).

Based on accomplishments in the research, teaching, marketing and other activities, my annual performance evaluation for the last 24 years have been rated as "OUTSTANDING" and I have been awarded Distinguished Professorship award from 2009/2010 which is only awarded to seven out of 1000 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. I published over 620 research papers in international journals and conferences of high repute and have over 12920 citations with H index 57 as per google scholar. Seven of my published papers have been listed in top 25 as cited by Science Direct. He has 42 patents so far issued/or published by US Patent Office. I was awarded Al-Marai Innovation Prize for the year 2011for my invention in the field of environment using nano-structured materials. I was awarded thrice the Distinguished (Best) Researcher Award by KFUPM for the years 2005-2006, 2010-2011 and 2015-2016 based on his research excellence and teaching. I am one of the recipient of the Best Research Paper award, instituted by the British Mechanical Engineers in 2007. Also awarded the Best Paper Oral Presentation Award in International Conference on Optoelectronics and Image processing (ICOIP 2015) held in Chicago, USA 2015 and 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 awarded the best project award for year 2008/2009, 2017/2018 by KFUPM. I have been a key note speaker for many international conferences and workshops. I got Distinguished Professorship Award for 2009/10,2012/13, 2015/16, 2018/2019, 2021/2022. Due to my research profiles, I have been appointed 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, Exeter University UK, KAUST, Imam Abdulrahman University Dammam, King Saud University Riyad, Umm Al-Qura University, Mekka, King Abdulaziz University Jeddah, Institute of Space Technology and National University of Science & Technology, Pakistan.

Laboratory Development Activities:

Worked on the development of the following laboratories:

- **Development of Environmental Lab for monitoring of Atmospheric Pollution** and for trace gas analysis using **self-developed laser 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 SF_6 leaks in power systems using laser" funded by SABIC UR grant was completed and also Saudi Eelctric 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 carcogenic and poisonous contaminants in food and cosmetic products, oil slicks, paints, oil residue samples, oil slicks, iron slag, industrial waste, plastic waste, olcanic erruptions, 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. SO_2, NO_2 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 advanced "Pulsed Laser Ablation Process" and chemical methods (sole 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 CO_2 into value-added products like methanol, conversion of greenhouse gases like methane into methanol, removal of heavy metals from water, disinfection of water.

- Synthesis of **Super Hydrophobic, Hydrophilic and Olieophobic surfaces** for oil water separation and self cleanings surfaces using Layer by Layer (LBL) coating, spin coating and cost effective pressurized spray coating techiniques developed at KFUPM which is being highly utilized in a joint project with MIT on oil water separation..

- Developed lab facilty/setups for **Energy Harvesting and Energy Storage Devices** like **Dye Sensitized and Perovskite Solar Cells (DSSC)** and fabrication of **Supercapacitors** (Hybrid and non Hybrid Supercapacitors)at KFUPM.

- Worked on facility for fabrication of **Thermoelectric Materials**, their characterization and applications for electrical power generation.

- Worked on the development of a setup for **Laser methane Cracking** using UV laser for Generation of High value Hydrocarbons (gaseous phase) and Hydrogen under SABIC/URC project funding scheme.

- Worked on the development of a setup for Photocatalysis **Conversion of Methane and CO_2 into methanol**, production of hydrogen, waster water 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 coaked 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.

- 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.

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

Following KFUPM faculty/staff members initiated, worked and collaborated with me (please see funded projects and Research Publications).

1.	Z.H. Yamani (Phys. Dept.)
2.	Z. Sedighi (Ummul-ALQura, University Mecca)

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, Kansas University.,USA
10.	G. K. CHUAH, Chem. Deptt, NUS Singapore
11.	Y. Messedeq, Phys.Deptt, Université Laval, Canada
12.	A.H. Bakary (KAAU, Jeddah)
13.	A.Arfaj (Chem. Dept.)
14.	S. Tawfiq (chem. Dept)
15.	S.M.Zubair (ME,Dept)
16.	G.Khattak (Phys. Dept)
17.	A. Mekki (Phys. Dept)
18.	Saleem Rao (Phys.Dept)
19.	Shanker (Phys.Dept)
20.	M. Al-Harti (Chem Eng. Dept)
21.	M.I. Ismail (KAAU, Jeddah)
22.	Josef Pola (Prague Check Republic)
23.	M.H.Shwehdi (EE, Dept and KFU)
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 NCP, Islamabad
31.	M. N. Sayeed (Chem. Dept.)
32.	A. Hameed (Envirn. C.E. KAAU. Jeddah)
33.	M. Nasr (Phys.Dept, Riyad Medical College)
34.	K. Hayat (Chem. Dept.)
35.	K. Drmoosh (CENT).
36.	A. Al-Aswad (Phys.Dept) Saudi
37.	M. Almesseri, IAU, Dammam
38.	J. Alghamdi, IAU, Dammam
39.	Taher Ghrib, IAU, Dammam
40.	N. Idris, Syiah Kuala University, Banda Aceh, Indonesia
41.	X. Chang National Laboratory of Solid State Microstructures, College of Engineering and Applied Sciences, Nanjing University, China.

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 resaerch 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. 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 f 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 allexperimental 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, Physics Department, Member Standing Committee for Research upgrade matters regarding Physics Department Member Standing Committee Phys 102 for Physics Department
2007-2009	Member Standing Committee to develop a plan for Ph.D. program in 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 the 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 award 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
2014-2018	**Member University Scientific Council**
2016-2017	Member Advisory Committee Chairman Physics
2011-till date	**Member Editorial Boards of 8 Journals**
2017-2021	Member Dept. Research Committee
2002-2024	Chairman and Member many promotion committees
2021-2023	Research Committee Phys Dept.
2024-2025	Member Departmental Hiring Committee

Reviewer for many Journals of high profile:

- Reviewer for Nature Scientific Reports (OSA).
- NPG Clean water (nature series)
- Nature Communications
- ACS NANO
- Reviewer for Applied Optics (OSA).
- Reviewer for ACS Applied Materials 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 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