Dr Hafeez Anwar

Associate Professor (Tenured)

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ACADEMIC QUALIFICATIONS:

- **Ph.D. (Physics), Dalhousie University**, **Halifax (NS), Canada (2009 – 2014)**
  Thesis Title: "Precious Metal-free Dye-sensitized Solar Cells".
- **M. Phil. (Physics)** from **University of Agriculture, Faisalabad, Pakistan (2000 – 2003)**
  Thesis Title: "Characterization and study of polymer blends using spectroscopic and microscopic techniques".
- **M.Sc. (Physics)** from **University of Agriculture, Faisalabad, Pakistan (1997 – 1999)**
  Thesis Title: "Investigation of Physico-Chemical changes in Minerals during bioleaching, by surface area determination and X-ray diffraction analysis".
- **Certificate** in "Learning and Teaching in Higher Education" course attended **at Dalhousie University, Halifax, NS, Canada.**

Distinctions / Scholarships/awards:

1. Scholarship for PhD under the "Faculty Development Program of University of Agriculture Faisalabad under HEC.
2. Merit Scholarship in MSc on the basis of bachelor examination.
3. Merit Scholarship on the basis Intermediate examination.
4. Quaid-i-Azam Scholarship on the basis matric examination.
5. Stood first at tehsil level in 8th class and got Merit Scholarship.
6. HEC recognized PhD supervisor

TEACHING EXPERIENCE:

1. **Associate Professor** at Department of Physics, **University of Agriculture,** Faisalabad, Pakistan - (28 October 2021 – onward)
2. **Assistant Professor** at Department of Physics, **University of Agriculture,** Faisalabad, Pakistan - (June 2, 2014 – 28 October 2021)

3. **Teaching Assistant** at Department of Physics and Atmospheric Science, **Dalhousie University**, Halifax (NS), Canada - (January 2009 - December 2013)

RESEARCH EXPERIENCE

5 years working experience in Organic Electronic Materials and Devices (OEMD) Laboratory, Department of Physics and Atmospheric Science, Dalhousie University, Halifax, Canada with Professor Dr. Ian G. Hill.

SKILLS

1. Device modelling of perovskite solar cells
2. Extensive experience on thin films deposition using thermal evaporation, electron beam evaporation, spin-coating, doctor blading and Electrodeposition techniques
3. Fabrication of Solar Cells particularly Dye-sensitized Solar Cells and Perovskite Solar cells
4. Expertise on using sun simulator to measure current-voltage characteristics, IPCE of solar cells
5. Expertise on synthesis of multi-walled carbon nanotubes (MWCNTs) using chemical vapour deposition methods in many different ways.
6. Expertise on electrochemical measurements such as impedance spectroscopy, cyclic voltammetry etc.
7. Extensive work on synthesis and applications of metal oxides and their composites.
8. Extensive work on synthesis and application of chalcogenides.
9. Extensive work on synthesis and application of Multiferroaics.
10. Expertise on X-ray diffraction (XRD) analysis to investigate structural properties of materials.
11. Expertise on Scanning electron microscopic analysis to investigate morphological properties of materials.

SUPERVISION:

1. **01 PhD** student is produced and **04 PhD** students are currently working under my supervision
2. **191 M. Phil** students completed their research theses under my supervision
3. **19 M. Phil** students are working under my supervision

4. **86 M. Sc.** students completed their Technical reports under my supervision

5. **15 BS Physics** students are working under my supervision

6. **M. Phil THESIS SUPERVISED**

Sr. No.	Student Name	Registration NO.	Title (Topic)	Session
1	Ali Raza Zulfiqar	2021-ag-2010	Synthesis and characterization of chromium and manganese co-doped bismuth ferrite	2023
2	Ahsan Raza	2021-ag-1955	SYNTHESIS OF CARBON BASED NANO FIBERS BY USING ELECTROSPINNING TECHNIQUE	2023
3	Ayesha Imran	2021-ag-2012	SYNTHESIS AND CHARACTERIZATION OF CALCIUM COPPER TITANATE BY SOLID STATE REACTION METHOD	2023
4	Mishal Rubab	2021-ag-2003	Latent fingerprints Development on Different Metallic Surfaces by the Application of Metallic Nanomaterials	2023
5	Maham Zafar	2021-ag-1952	Synthesis and characterization of reduced graphene oxide (rGO) based nano-composites for the electrochemical energy storage devices.	2023
6	Sania Ghaffar	2021-ag-2009	Synthesis and Electrochemical Studies	2023

			of Electrospun Cerium Oxide (CeO_2) based Carbon Nanofibers	
7	Muhammad Mujahid	2021-ag-1954	SYNTHESIS AND CHARACTERIZATION OF CALCIUM COBALT COMPOSITE OXIDES NANOFIBERS	2023
8	Bushra Khalid	2021-ag-2763	synthesis of lanthanum strontium ferrite based nanofibers	2023
9	Tayyab Iqbal	2021-ag-2120	Synthesis and Characterization of PVP mediated NiO/AC nanostructure for energy applications.Synthesis and Characterization of PVP mediated NiO/AC nanostructure for energy applications.	2023
10	Muhammad Mubashar Amin	2021-ag-2030	SYNTHESIS AND CHARACTERIZATION OF CALCIUM DOPED ZINC FERRITES	2023
11	Rafia Riasat	2021-ag-2132	Synthesis of Cerium and Chromium co-doped Cobalt Oxide Nanoparticles for Super-capacitor application	2023
12	Abdul Basit	2021-ag-2113	Fabrication Of Flexible Thin Film Substrates By The Extraction Of CNCs From Cellulosic Materials	2023

13	Asad Bashir	2021-ag-2141	SYNTHESIS AND CHARACTERIZATION OF MAGNESIUM DOPED ZINC FERRITES	2023
14	Muhammad Umair	2021-ag-2114	MECHANISTIC EFFECT OF CALCIUM PHASPHATE MEDIATED CeO/BiO NANOSTRUCTURES FOR INVIVO AND INVITRO CYTOTOXICITY STUDIES	2023
15	Muhammad Zaman	2021-ag-2070	SYNTHESIS AND CHARACTERIZATION OF MANGANESE DOPED ZINC FERRITE	2023
16	Muhammad Naseer	2021-ag-2057	synthesis and characterization of silver doped cerium/magnesium oxide nanocomposite for biological aspect study	2023
17	Kinza Zulfiqar	2021-ag-2092	Synthesis of Cr^{3+}Doped $CuGaO_2$ Nano Crystals as an Inorganic Hole Transporting Material (HTM) For Perovskite Solar Cells	2023
18	Mehmoona Chaudhary	2021-ag-2097	Synthesis of Ga^{3+}Doped $CuCrO_2$ Nano Crystals as an Inorganic Hole Transporting Material For Perovskite Solar Cells	2023
19	Mubashra Tahir	2021-ag-2006	Machine learning assisted laser induced breakdown spectroscopy of Gadolinium	2023

			substituted bismuth ferrites	
20	Muniba Aslam	2021-ag-2044	synthesis of GCN/Ag doped TiO_2 nanocomposites and their characterization for wastewater treatment	2023
21	Muhammad Shoaib Asghar	2021-ag-2001	Synthesis and Characterization of Carbon based Zinc Ferrite Composites	2023
22	HIRA SAJID	2018-ag-1484	Synthesis and Characterization of NiO-GO Composites as Hole Transport Material for Perovskite Solar Cells	2022
23	SAQIB SHABIR	2018-ag-1587	Synthesis and characterization of ferrite-based nanofibers	2022
24	GUL ZRAIN	2017-ag-0963	Synthesis and characterization of cerium doped bismuth ferrite multiferroics by sol-gel auto-combustion method	2022
25	HINA SEHRISH	2018-ag-1569	Synthesis and characterization of samarium substituted Bismuth ferrites	2022
26	SHADAB AZAM	2020-ag-1421	Photocatalytic activity of graphitic carbon nitride (g-C_3N_4) based reduced graphene oxide (rGO) nanocomposites in waste water treatment	2022
27	MAREENA	2020-ag-1438	Device Simulation of Heterojunction Organic Solar	2022

			Cells	
28	FATIMA NOOR	2020-ag-1397	Facile synthesis of Cu-based nanostructures for removal of Cr(VI) from waste water	2022
29	AZKA ZULFIQAR	2020-ag-1403	Role of copper doping in tuning the structural and optical properties of nickel oxide nanostructures	2022
30	TAHIR IQBAL	2018-ag-1302	Synthesis and characterization of yttrium substituted bismuth ferrite prepared by sol-gel auto-combustion method	2022
31	IQRA TABASSUM	2018-ag-4605	Synthesis and characterization of gadolinium substituted bismuth ferrite prepared by sol-gel auto-combustion method	2022
32	Ayesha Aslam	2018-ag-1306	Synthesis and characterization of samarium doped zinc cobalt ferrite	2022
33	Sonia Nawaz	2018-ag-1573	Synthesis and characterization of nickel oxide (NiO) nanoparticles for their sonophotocatalytic performance to remove organic pollutants from waste water	2022
34	Tahir Iqbal	2018-ag-1302	Synthesis and characterization of yttrium substituted bismuth ferrite prepared by sol-gel auto-	2022

			combustion method	
35	Numan Abid	2019-ag-2421	THEORETICAL PERFORMANCE ANALYSIS OF HETRO JUNCTION SOLAR CELL WITH LEAD FREE ABSORBER	2021
36	Shabbir Arshad	2019-ag-2404	Performance Optimization of Carbon-Based Heterojunction Solar Cell by Simulation	2021
37	Muhammad Talha Jamil	2019-ag-2405	Synthesis and Characterization of Carbon-based Composites	2021
38	Kamila Younis	2019-ag-2416	Synthesis and characterization of rGO/PANI/CuO for energy applications	2021
39	Aqsa Aslam	2017-ag-0939	Role of Cr doping in tuning the optical and dielectric properties of TiO_2 nanostructures	2021
40	Faisal Naveed	2019-ag-2458	Performance Optimization of Heterojunction Solar Cell by Simulation	2021
41	Maria Anwar	2017-ag-0940	fabrication of perovskite solar cells using inorganic hole transport material for enhanced performance	2021
42	Gulzar Hussain	2017-ag-4627	SYNTHESIS AND CHARACTERIZATION OF DYSPROSIUM DOPED BISMUTH FERRITES	2021
43	Amina ulfat	2017-ag-1043	Synthesis and	2021

			Characterization Of BiOI\CdS Composites	
44	Sadia Abbas	2017-ag-0944	Preparation of NiO thin films for photovoltaic applications	2021
45	Ishfaq Ahmad	2016-ag-2368	Preparation and characterization of lanthanum substituted bismuth ferrites	2020
46	Maryam Khalid	2018-ag-4256	Fabrication of rGO-CNTs composites based counter electrodes for dye-sensitized solar cells	2020
47	Saba Khalid	2016-ag-3206	Synthesis and characterization of Sulfur doped zinc oxide nanoparticles	2020
48	Naila Saeed	2016-ag-2838	Synthesis and characterization of sulfur doped titanium dioxide nanoparticles	2020
49	Huma Sajid	2016-ag-2369	Fabrication of counter electrodes for dye-sensitized solar cells using reduced graphene oxide	2020
50	M. Umair Subhani	2016-ag-1478	Preparation and characterization of Strontium substituted bismuth ferrites	2020
51	Abdul Shakoor	2016-ag-2367	Preparation, characterization of copper oxide nanoparticles and study of their effect for Bioaccumulation pattern of Bighead Carp	2020
52	M. Rehman	2018-ag-4335	Performance analysis of organic-inorganic hybrid	2020

			solar cell by numerical approach	
53	Umar Waqas	2016-ag-1704	Physical Metallurgy-Extraction of Lithium from secondary waste	2020
54	Anam Hameed	2018-ag-4229	Synthesis and characterization of lanthanum doped zinc cobalt ferrite nano-particles.	2020
55	M. Shahbaz	2016-ag-3657	Designing and fabrication of homemade potentiostat	2020
56	Muhammad Asif	2016-ag-293	Synthesis and Characterization of Copper Oxide Nanoparticles: Their Hematological Studies for Labeo Rohita	2020
57	Mehak Asgher	2016-ag-826	Synthesis and characterization of iron-titanium dioxide nanocomposites	2020
58	Amna falak	2018-ag-4222	Investigation of the effect of fuel/oxidizer ratio in the synthesis of $CuAl_2O_3$	2020
59	Benish Abbas	2016-ag-1318	Synthesis and characterization of NiO-CdO composite materials for antibacterial applications	2020
60	Hajra Pervaiz	2016-ag-2423	Synthesis and Characterization of Iron Doped Zinc Sulfide Nanoparticles	2020
61	Aqsa Ishtiaq	2018-ag-4178	Synthesis and characterization of titanium	2020

			dioxide (TiO_2) nanoparticles by sol gel technique and its applications in growth performance in catla catla	
62	Zartashia Mumtaz	2018-ag-4262	Synthesis and characterization of titanium dioxide nanoparticles and their application to study Oxidative stress and behavioral responses of *Catla catla*	2020
63	Kaneez Fatima	2018-ag-4358	Preparation of Carbon Nanomaterials based Counter Electrodes for Dye Sensitized Solar Cells (DSSCs)	2020
64	Alia Siddiqua	2018-ag-4190	Synthesis and phase transition study of manganese oxides	2020
65	Qasim Ali	2018-ag-4355	synthesis of Reduced Graphene Oxide using graphene oxide and their characterization	2020
66	Ayesha Arshad	2018-ag-4428	Synthesis and characterization of copper doped zinc ferrites and their biological potential	2020
67	Kanwal Waseem	2018-ag-4180	Synthesis and characterization of Titanium dioxide/copper oxide (TiO_2/CuO) nanocomposites	2020
68	Hafiz Abdul Wajid	2016-ag-4725	Synthesis and characterization of titanium dioxide nanoparticles and investigation of their	2020

			Toxicological effects in Common Carp	
69	M. Husnain Azeem	2014-ag-2965	Synthesis, characterization of copper oxide nanoparticles and study of their effect on catalase and peroxidase activity in different organs of *Labeo rohita*	2020
70	Iffat Rasheed	2018-ag-4298	Synthesis and Characterization of Graphene oxide/TiO_2 Nanocomposites as a photocatalyst	2020
71	Safdar Iqbal	2016-ag-1843	Performance Optimization of Heterojunction Solar Cells	2020
72	M. Hassan Mustafai	2018-ag-4735	Synthesis and characterization of Zinc Oxide nanoparticles and their biological potential	2020
73	Afzaal Ahmad	2018-ag-4435	Laser spectroscopy of cosmetics to monitor the safety of these products	2020
74	Muhammad Azeem	2016-ag-3488	Synthesis, characterization of nickel oxide nanoparticles and study of their effects for bioaccumulation patterns in different organs of tilapia	2020
75	Ayesha Jamil	2015-ag-1377	Preparation and characterization of Activated Carbon	2019
76	Muhammad aftab	2015-ag-923	Preparation of metal oxide semiconductor and its characterization	2019
77	Aqeela Yasin	2015-ag-402	Synthesis and	2019

			characterization of polyaniline-graphite composites for their structural and morphological properties	
78	Aqsa Islam	2015-ag-861	Synthesis and characterization of Zinc Oxide nanoparticles and investigation of their photo-physical properties	2019
79	Malik Farhan	2015-ag-3654	Synthesis of copper oxide and investigation of its structural and morphological properties	2019
80	Muhammad Farooq Shaukat	2017-ag-5201	Synthesis and characterization of sulfur doped titanium dioxide	2019
81	Farwa Batool	2015-ag-1345	Preparation of carbon nanofibers through electrospun process and their characterization	2019
82	Hareer sarmad	2017-ag-3536	Synthesis and characterization of manganese doped cadmium sulfide nanoparticles	2019
83	Muhammad Haseeb	2015-ag-131	Fabrication and characterization of reduced graphene oxide thin films deposited by spray pyrolysis technique for dye-sensitized solar cells	2019
84	Kalsoom Hayat	2015-ag-1922	Thin films deposition of rGO by using Vacuum filtration	2019
85	Mehwish Javed	2015-ag-1226	synthesis of cuprous oxide	2019

			nanoparticles and their characterization	
86	Momna Zahra	2015-ag-1453	Synthesis and Characterization of Iron doped Nickel Oxide Nanoparticles	2019
87	Muhammad Naeem Aslam	2015-ag-924	Preparation of Copper based metal oxide semiconductor and its characterization	2019
88	Mujahid Iqbal	2015-ag-401	Fabrication and characterization of layered graphene oxide thin films	2019
89	Sabiha Hanif	2017-ag-3605	Preparation and characterization of reduced graphene oxide thin films	2019
90	Seemi Riaz	2017-ag-3469	Preparation and characterization of cadmium sulfide thin films using chemical bath deposition.	2019
91	Usman Elahi	2015-ag-2267	Fabrication and characterization of Graphene oxide thin films by electrophoretic deposition	2019
92	Muhammad usman	2015-ag-1196	Synthesis and characterization of lanthanum doped Cobalt ferrites	2019
93	Zubair Aziz	2017-ag-3551	SYNTHESIS OF $CoFe_2O_4$/ EPOXY RESIN COMPOSITES AND INVESTIGATION OF STRUCTURAL, THERMAL AND ELECTRICAL PROPERTIES	2019

94	Ahmad Bin Amin	2014-ag-9604	Synthesis and Characterization of reduced graphene oxide	2018
95	Ammara Mustafa	2016-ag-214	Synthesis and Characterization of Fe doped CuO nanoparticles	2018
96	Arslan Majeed	2014-ag-1993	Synthesis Characterization of Cobalt based Zinc Oxide nanofibers	2018
97	Ayesha Munir	2014-ag-2091	Synthesis and Characterization of silver doped cuprous oxide core shell nanoparticles	2018
98	Faryal Sahar	2014-ag-835	Investigation of the performance of solar cells under different light intensities	2018
99	Hassan Akhtar	2016-ag-3785	Effect of Carbon Nanotubes (CNTs) on the structural, optical and thermal properties of $CoLa_{0.1}Fe_{1.9}O_4$ Ferrite	2018
100	Hina Saeed	2016-ag-212	Synthesis and Characterization of iron doped Copper Sulfide	2018
101	Huma Khadija	2014-ag-8145	A Simple Mathematical Approach to Extract the Parameters of a Photovoltaic Cell	2018
102	Huma Mushtaq	2014-ag-1696	Synthesis and Characterization Zinc Oxide Nanoparticles	2018
103	Iqra Aslam	2013-ag-1808	Synthesis and Characterization of copper	2018

			iodide nanoparticles synthesized via Green synthesis	
104	Iqra Murad	2014-ag-2332	Preparation and Characterization of Anodized Aluminum Oxide (AAO)	2018
105	Memuna Bibi	2014-ag-8833	Synthesis and Characterization of Polyaniline Titanium Dioxide Composites	2018
106	Mian Waqar Khalid	2016-ag-3156	Synthesis and characterization of magnetite iron oxide nanoparticles	2018
107	Moazma Aslam	2016-ag-213	Synthesis and characterization of nickel doped copper sulfide nanoparticles	2018
108	Syeda Mohadsa batool naqvi	2014-ag-836	Temperature dependent investigation of CuO nanoparticles for structural and morphological properties	2018
109	Neelam Ghaffar	2014-ag-911	Synthesis and characterization of silver doped copper iodide	2018
110	Sadia Khalid	2016-ag-211	Synthesis and characterization of Zn-doped copper oxide	2018
111	Sadia Liaqat	2014-ag-839	Synthesis of copper oxide nanoparticles and their characterization	2018
112	Salma Bashir	2016-ag-196	Synthesis and characterization of Al_2O_3-TiO_2 composites	2018

113	Saher Ajmal	2016-ag-780	Synthesis and characterization of Zn doped NiO nanoparticles	2018
114	Sehrish Hanif	2016-ag-191	Investigation of temperature effect on the phase transformation of titanium dioxide	2018
115	Malik Shahid Iqbal	2016-ag-4941	Synthesis and characterization of Manganese dioxide nanoparticles	2018
116	Shakeela Zafar	2016-ag-190	Synthesis and characterization of Aluminum Oxide Al_2O_3 nanoparticles	2018
117	Shazia Parveen	2016-ag-215	Synthesis and characterization of copper doped nickel oxide nanoparticles	2018
118	Sidra Ghafoor	2014-ag-2714	Synthesis and characterization of Barium doped Zinc Oxide	2018
119	Sidra Sarwar	2014-ag-837	Synthesis and characterization of solar cells under different light intensities	2018
120	Wajahat Ali	2014-ag-647	Synthesis of Graphene Oxide and its characterization	2018
121	Zunaira Ashraf	2014-ag-1458	Synthesis and characterization of iron doped Nickel oxide nanoparticles	2018
122	Wajeeha Wahab	2013-ag-6096	Fabrication of Photoanode For Dye-Sensitized Solar Cells	2017

123	Abubakar	2015-ag-2201	Electro-Deposition of ZnO Films and Their Application In Photoanode Of Dye-Sensitized Solar Cells	2017
124	Amna Manzoor	2015-ag-0265	Electronic Structure and Optical Properties of Tio_2: An Ab Initio Study	2017
125	Ayesha Ali	2015-ag-0473	Synthesis of Copper Doped Zinc Oxide Nanoparticles and Their Characterization	2017
126	Ayesha Khan	2015-ag-0357	Synthesis of Cobalt Doped Zinc Oxide Nanoparticles and Their Characterization	2017
127	Bushra Chand Rana	2013-ag-1807	Synthesis and Characterization of Al-Doped Zinc Oxide Nanoparticles	2017
128	Ghulam Asghar	2015-ag-1762	Synthesis, Characterization of Lanthanum Cobalt Oxide And Study of Its Photocatalytic Activity For Industrial Dyes	2017
129	Hafiza Sonia Bakhtawar	2013-ag-6097	Synthesis and Characterization of Copper Indium Disulfide Nanoparticles	2017
130	M. Muzammal Ilyas	2015-ag-2574	Synthetization of Lanthanum Doped Strontium Titantes ($Lasrtio_3$) Nanoparticles and Their Characteristics	2017
131	M. Suleman	2013-ag-0678	Synthesis and Characterization of Copper Manganese Oxides	2017
132	Rabia Javaid	2015-ag-2008	Synthesis and	2017

			Characterization of Copper Iodide Nanoparticles	
133	Saher Muzaffar	2013-ag-6232	Synthesis, Characterization of Zinc Oxide (ZnO) And Its Application For Water Purification	2017
134	Sibga Rafiq	2015-ag-1198	Synthesis and Characterization of Zn Doped Barium Titanate Perovskite Material	2017
135	Sobia Sattar	2013-ag-1113	Synthesis and Characterization Of Lanthanum Orthoferrite Nanoparticles	2017
136	Sumbla Shafeeq	2013-ag-0300	Synthesis of Silver Nanoparticles and Their Application For Water Purification	2017
137	Uswa Javeed	2015-ag-2232	Preparation of Electrolyte for Dye-Sensitized Solar Cells	2017
138	Aqsa Ashraf	2015-ag-1794	Synthesis and Characterization of Magnetite-Carbon Composites	2017
139	Aqsa Shahid	2015-ag-1865	Synthesis and Characterization Of Polyaniline/Magnetite/Carbon Composites	2017
140	Muhammad Rashid	2014-ag-9041	Temperature Dependent Investigation of Zinc Oxide Nanoparticles for Structural and Morphological Properties	2017
141	Faiza Parveen	2015-ag-0087	Synthesis of Nickel (Ni)	2017

			Doped TiO_2 Nanoparticles and Characterization	
142	Ali Akbar	2014-ag-9513	Study the effect of sonication on the structure and morphological properties of Cobalt sulfide	2016
143	Almas Younis	2014-ag-2286	Synthesis and characterization of cuprous oxide nanoparticles	2016
144	Amna Bibi	2014-ag-2917	Synthesis of Copper Oxide Nanostructures and Their Characterization	2016
145	Aqsa Akram	2014-ag-2432	Study the Effect of Sonication on Structural and Morphological Properties of Cobalt Oxide Nanoparticles	2016
146	Asma Kausar	2014-ag-8560	Synthesis of Polyaniline-graphite composites and their characterization	2016
147	Ayesha	2014-ag-2285	Synthesis of ZnO/CuO hierarchical nanostructures and its characterization	2016
148	Zunaira Noreen	2014-ag-9190	Study the effect of pH on the structural and morphological properties of molybdenum disulfide nanoparticles	2016
149	Faiza Mustafa	2014-ag-1847	Synthesis of activated carbon-polyaniline composites and their characterization	2016
150	Huma Basheer	2014-ag-8745	Synthesis of magnesium oxide (MgO) nanostructures and their characterization	2016
151	Iqra Chaudhary	2014-ag-2290	Synthesis and	2016

			characterization of Zinc Oxide (ZnO) nanostructure by using chemical bath deposition method	
152	Iram arif	2013-ag-13	Synthesis of zinc oxide nanoparticles, their characterization and applications in biosensor.	2016
153	Sarmed Ali	2014-ag-9352	Study the Performance of Solar Cells at Various Illumination Levels	2016
154	Mariam Fatima	2014-ag-1545	Synthesis and Characterization of TiO_2 Nanowires	2016
155	Mariam Noreen	2014-ag-2289	Synthesis of Copper Oxide (CuO) nanoparticles via Green Method and their characterization	2016
156	Mehwish Yousaf	2014-ag-8744	Study the effect of sonication on the structural and morphological properties of titanium dioxide	2016
157	Mobeen Akhtar	2014-ag-1473	Synthesis of graphene oxide using graphite powder and its characterization	2016
158	Muneeba Arooj	2014-ag-9129	Synthesis and characterization of Al-doped TiO2 nanoparticles	2016
159	Sadia Rafique	2014-ag-2438	Synthesis of ZnS nanoparticles and their characterization	2016
160	M Sulman Afzal	2014-ag-9351	Designing and fabrication of low cost simulator for solar	2016

			cell testing	
161	Samin Fatima	2014-ag-2433	Synthesis of cobalt oxide nanoparticles and theircharacterization	2016
162	M Bilal Chisty	2014-ag-9350	Study the effect of light intensity on the performance of solar cells	2016
163	Shoaib Ahmad Liaqat	2014-ag-8898	Synthesis of WO_3-Fe_2O_3 composites and their characterization	2016
164	Shumaila Ashraf	2014-ag-8559	Synthesis and characterization of cobalt sulphide nano-particles	2016
165	Sidra-tul-Muntaha	2014-ag-2689	UV Assisted Synthesis of Cadmium Sulfide Nanoparticles and Their Characterization.	2016
166	Sobia Jamil	2014-ag-8558	Microwave-assisted synthesis and characterization of cadmium sulfide (CdS) nanoparticles	2016
167	Zainab Waseem	2013-ag-2288	Synthesis and characterization of ultrahigh surface area carbon	2016
168	Zunaira Javaid	2014-ag-2287	Synthesis and characterization of polyethylene glycol (PEG) coated Ag@α-Fe_2O_3 Core-Shell Nanoparticles	2016
169	Bushra Naseer	2014-ag-9191	Study the effect of sonication on structural properties of molybdenum disulphide	2016
170	Muhammad Qummer	2014-ag-8345	Risk assessment of radiation	2016

	Siddique		exposure to general public from the patients of Ca thyroid and benign thyroid disease patients	
171	Adnan Mustafa	2013-ag-6897	Synthesis of TiO_2-Fe_2O_3 nanocomposites by wet impregnation method and their characterization	2015
172	Amina Ghaffar	2013-ag-1536	Synthesis and Characterization of Cadmium Sulfide (CdS) nanoparticles	2015
173	Amira Sattar	2008-ag-737	Synthesis, characterization of zinc oxide nanoparticles and study the effect of sonication on the structure and morphology	2015
174	Anam Jabeen	2010-ag-1186	Synthesis and characterization of Cadmium Sulfide nanoparticles (CdS) by using low temperature thermolysis method	2015
175	Gulzar Ahmad	2013-ag-532	Designing and Fabrication of Spin Coater for Deposition of Thin Films	2015
176	Hafiz Muhammad Umair Arshad	2013-ag-6015	Synthesis, characterization of Titanium dioxide/Zinc oxide nanocomposite and study of its photocatalytic activity for industrial dye	2015
177	Javed Iqbal	2013-ag-1178	Deposition of Nano-TiO_2 thin films using spin coating Technique	2015
178	Liaqat Ali	2013-ag-1970	Synthesis of ZnO quantum	2015

			dots and their characterization	
179	Muhammad Sajid	2013-ag-6028	Synthesis of copper oxide (CuO) nanoparticles by solvothermal method and their characterization	2015
180	Muhammad Nouman Iqbal	2013-ag-1955	Synthesis of graphene oxide (GO) by modified Hummers method and its characterization	2015
181	Mubeen Mubarak	2013-ag-1434	Synthesis of zinc oxide (ZnO) nanofluid and study of its optical properties	2015
182	Muhammad Shahzad	2013-ag-6016	Preparation and characterization of Polyaniline-Zinc oxide composites using chemical oxidative method	2015
183	Nadeem Asif	2013-ag-534	Synthesis, Characterization of metal oxide/carbon composites and study of their photocatalytic activity for industrial dyes	2015
184	Saif-ur-Rehman	2013-ag-711	Synthesis of cadmium sulphide (CdS) nanoparticles and study the effect of sonication on their structural and morphological properties	2015
185	Shamaila Noreen	2013-ag-1435	Synthesis of titanium dioxide (TiO_2) nanoparticles and preparation of its paste	2015
186	Shaukat Ali Sadiq	2013-ag-6484	Synthesis of titanium dioxide nanoparticles and study of the effect of pH on their	2015

			structural and morphological properties	
187	Umair Yasin	2013-ag-6144	Synthesis and characterization of Fe_2O_3 by solid state chemical reaction	2015
188	Yousaf Ali	2013-ag-6024	Synthesis, characterization of Titanium dioxide and its application for water purification	2015
189	Zaighum Tanveer	2013-ag-866	Synthesis and characterization of Fe_2O_3/TiO_2 composite	2015
190	Qasim Ali	2013-ag-015	Synthesis, characterization of Titanium dioxide and stud of its photocatalytic activity for industrial dyes	2015
191	Asma Nosheen	2009-ag-1239	Synthesis, Characterization and Study of Biological Activity of ZnO Nanoparticles	2015

7. TECHNICAL REPORTS SUPERVISED (M. Sc. Students)

Sr. No.	Student Name	Reg. No.	Title (Topic)	Session
1	Zeeshan Raza	2016-ag-4880	Measurement of Resistivity of Semiconductor by Four Prob Method	2018
2	Muhammad Shahbaz	2016-ag-3657	Finding the Resistivity of Semiconductor by Four Prob Method	2018
3	Ishfaq Ahmed	2016-ag-2368	Nanostructure of Nickle Oxide	2018
4	Shahzaib Raza	2016-ag-2590	Medical Application of Magnetite Fe_3O_4	2018
5	Aqsa Malik	2016-ag-1521	Photoluminescence Spectroscopy and its Applications	2018

6	Aqsa Mubeen Asghar	2016-ag-2796	Synthesis and Characterization of Aluminum Oxide Nanoparticles	2018
7	Komal Zahra	2016-ag-1852	Hole Transport Materials for Perovskite Solar Cells	2018
8	Muddassar Hussain	2016-ag-4854	Dielectric Properties of Ferrites	2018
9	Ali Raza	2016-ag-3248	Hetrostructures of Cadmium Sulfide	2018
10	Elahi Bakhsh	2016-ag-3286	Conducting Polymers	2018
11	Sania Mukhtar	2016-ag-3207	Measurement of Thin Film Thickness	2018
12	Kiran Mahmood	2016-ag-2535	Synthesis of Silver Nanoparticles by Different Techniques	2018
13	Zainab Rafiq	2015-ag-4206	Small Molecules Polymer Solar Cells	2018
14	Mahak Asghar	2016-ag-826	Synthesis and Characterization of Titanium Dioxide	2018
15	Sidra Ayyub	2016-ag-217	Electrochemical Impedance Spectroscopy	2018
16	Mudassarah Shafi	2016-ag-249	Graphene Oxide and its Applications	2018
17	Husnain Arshad	2016-ag-4830	Thin Film Solar Cell	2018
18	Muaaz Nasir	2016-ag-4855	Bioelectromagnetism	2018
19	Hunaiza Nawaz Cheema	2016-ag-3603	Metal Oxide Nano Fibers	2018
20	Muhammad Shafique	2016-ag-1297	Carbon Nanotubes	2018
21	Nouman Ali Shahid	2016-ag-1535	Hybrid Solar System	2018
22	Huma Sajid	2016-ag-2369	Raman Spectroscopy and Its Applications	2018
23	Shoaib Umer	2015-ag-2328	Synthesis and characterization of Strontium Oxide	2017
24	Fariha Shabir	2015-ag-4205	Study of Carbonaceous Materials	2017

25	Mehwish Javed	2015-ag-1226	Study of Titanium Dioxide Nanostructures	2017
26	Zubair Shahbaz	2015-ag-2366	Types of solar Cell	2017
27	Aqsa Islam	2015-ag-861	Synthesis of Zinc Oxide Nanoparticles	2017
28	Wasim Ahmad	2015-ag-943	Synthesis of Strontium Oxide	2017
29	Umaira Khalid	2015-ag-2505	Synthesis and Characterization of $LaFeO_3$	2017
30	Zulqurnain Haider	2015-ag-3317	Lead free Perovskite Solar Cell	2017
31	Sehrish Rafiq	2015-ag-1268	Synthesis of Copper Iodide nanoparticles for solar cell	2017
32	Tauseef Hussain	2015-ag-1677	Study of different nanostructures of Nickel Oxide	2017
33	Muhammad Amjad Islam	2015-ag-3386	Study of Carbon Nanotubes	2017
34	Kalsoom Hayat	2015-ag-1922	Removal of Heavy Metals by using Copper Oxide nanoparticles	2017
35	Momna Zahra	2015-ag-1453	Synthesis and Characterization of Nickel Oxide	2017
36	Muhammad Aftab	2015-ag-923	Applications of silver nanoparticles for water purification	2017
37	Mubashra Rasool	2015-ag-1761	Study of nanostructures of copper Iodide	2017
38	Aamer Hussain	2015-ag-1295	Carbon-Based nanomaterial and their applications	2017
39	Ayesha Tahir	2015-ag-3771	Synthesis of Titanium Dioxide by Anodization Technique	2017
40	Samia Arif	2015-ag-1808	Study of Titanium Dioxide paste for solar cell Applications	2017
41	Imtiaz Naseeb Awan	2015-ag-3634	Biological Applications of ZnO nanoparticles	2017

42	Shoaib Hassan	2015-ag-101	Thin film Deposition Techniques for Solar Cell Applications	2017
43	Malik Farhan	2015-ag-3654	Study of Photocatalytic Activity of Titanium Dioxide	2017
44	Adila Safder	2014-ag-909	Study of Cobalt Oxide nanoparticles	2016
45	Rafia Sahar	2014-ag-1385	Study of Cobalt Oxide nanostructures	2016
46	Ayesha Munir	2014-ag-2091	Study of Magnesium Oxide nanoparticles.	2016
47	Faryal Sahar	2014-ag-835	Study of MgO Nanoparticle.	2016
48	Memuna Bibi	2014-ag-8833	Study of the role of electrolyte in dye-sensitized solar cells.	2016
49	Abdul wahad	2014-ag-2463	Comparison of various structural characterization techniques for perovskite solar cell.	2016
50	Amna Iqbal	2014-ag-8330	A review on hole transport materials for perovskite solar cell.	2016
51	Arslan Majeed	2014-ag-1993	A report on methods of conductivity and resistivity measurements	2016
52	Asma Riaz	2014-ag-9260	A review on Electron Transport Material for Perovskite Solar Cell.	2016
53	Farva Mazher	2014-ag-8231	Study and synthesis of Carbon Black.	2016
54	Huma Khadija	2014-ag-8145	Small molecule polymer solar cell.	2016
55	Madeeha Altaf	2014-ag-1291	A review on analysis of current voltage characteristics of solar cells fabricating with various types of nanostructures.	2016
56	Mubasshar Siddique	2014-ag-9169	Dielectric properties of materials	2016
57	M.Umair	2014-ag-2315	Dielectric properties of nanomaterials	2016
58	Naheed akhtar	2014-ag-2500	Application of carbon based nanomaterials for super capacitors	2016
59	Rija Khan	2014-ag-1522	Study of synthesis of activated carbon	2016
60	Saira	2014-ag-2896	Role of photoanode in perovskite solar	2016

	Mehboob		cells.	
61	Sara Iqbal	2014-ag-1583	Solution processing techniques for Hybrid solar cells: A comparison	2016
62	Tooba Sadia	2014-ag-9391	Material properties and structure of perovskite cells	2016
63	Kanza Ali	2014-ag-9507	Effect of temperature on electrical parameters of Perovskite solar cell.	2016
64	Iqra Murad	2014-ag-2332	Fuel cell technology.	2016
65	Sidra sarwar	2014-ag-837	A review on synthesis of carbon nanotubes	2016
66	Aiman sohail	2014-ag-8499	Application of conduting polymers in Perovskite solar cell	2016
67	Amna Mukhtar	2014-ag-9134	Study of various nanostructures of Copper Oxide	2016
68	Danish Tahir	2014-ag-9285	The study of different ZnO nanoparticles.	2016
69	Ameraha Binte Ishfaq	2014-ag-8959	A report on supercapacitors and their applications	2016
70	Madiha Rasty	2014-ag-8875	Magnetic Hyperthermia and its application in cancer therapy	2016
71	Khalil ur Rehman	2014-ag-9069	Study of carbon nanotube-based composites	2016
72	Arslan Hussain	2013-ag-416	Measurement of thin film thickness	2015
73	Bushra Chand Rana	2013-ag-1807	Synthesis of Zinc Oxide Nano Particles	2015
74	Khansa Iftikhar	2013-ag-973	Biosensors: An introduction	2015
75	M.Usman Younas	2013-ag-789	Electronic pest Repeller	2015
76	Muhammad Ashraf	2013-ag-370	Electronic Weight Balance: Study of its design	2015
77	Muhammad	2013-ag-1159	Fabrication and characterization of	2015

	Asim		Bismuth ferrites Nano particles	
78	Muhammad Suleman	2013-ag-0678	Cathode materials for DSSC	2015
79	Saher Muzaffar	2013-ag-6232	The role of Dyes in DSSC	2015
80	Sobia Sattar	2013-ag-1113	Application of Quantum dots in DSSC	2015
81	Umair Khalid	2013-ag-1440	Electrical Conductivity measurements	2015
82	Wajeeha Wahab	2013-ag-6096	Photo anode materials for DSSC	2015
83	Waqar Ahmad	2013-ag-1939	Role of Electrolytes in DSSC	2015
84	Waqas Mahmood	2013-ag-1170	Electronic Balance: Study of its working	2015
85	Iqra Aslam	2013-ag-1808	Synthesis of TiO_2 nano particles	2015
86	Usama Khalid	2013-ag-372	Conducting substrates in dye sensitized solar cell	2015

RESEARCH PROJECTS

Completed Projects

As Principal Investigator (PI)

1. **STARTUP RESEARCH GRANT PROGRAM (SRGP**) approved on June 9, 2015.
    - **Title:** "Synthesis and characterization of metal-oxide nanostructures for solar cells applications"
    - **Amount: Rs. 247250/-**
    - **Funding agency: HEC**
2. Project is approved under PSF-NSF Sri-Lanka joint call for research.
    - **Title:** "Development of carbon based nanomaterials for counter electrodes in dye sensitized solar cells"
    - **Amount: 20000/-USD (approx.)**
    - **Funding agency: PSF-NSF**
3. Project is approved under NRPU in 2019

- **Title:** "Development of simple and novel inorganic hole transport materials for perovskite solar cells"
- **Amount: Rs. 2.71M**
- **Funding agency: HEC**

As Co-Principal Investigator (Co-PI)

1. This project is approved under **Technology Development Funding (TDF)**
   - **Title:** "Optimization, fabrication and designing of a portable solar powered umbrella"
   - **Amount: Rs. 2.2 million**
   - **Funding agency: HEC**
2. This project is approved under NRPU 2019.
   - **Title:** "New Approaches for Highly-Efficient Plasmonic Dye-Sensitized Solar Cells with Advanced Functional Nanomaterials"
   - **Amount: Rs. 2.80 M**
   - **Funding agency: HEC**

PUBLICATIONS

Total Impact Factor: (225.611)

International Refereed Journals:

1. Perveen, M., Zahid, M., Iqbal, J., & Anwar, H. (2025). Unveiling the potential of C4N3 as a novel sensing surface for persistent organic pollutants: A DFT study. *Computational and Theoretical Chemistry*, 115193. (IF = 3.0)
2. Islam, A., Ullah, N., Blazek, V., Prokop, L., & Anwar, H. (2025). Exploring the Potential of Tungsten Disulfide Interlayer for Perovskite Solar Cell Performance Enhancement through Numerical Approach. *IEEE Access*. (IF =3.4)
3. Zulfiqar, K., Chaudhary, M., Ali, J., Wang, M., Anwar, H., Fawy, K. F., & Rasheed, T. (2025). Investigation of Cr3+ Doped CuGaO2 as an Inorganic Hole Transport Material (HTM) For Perovskite Solar Cells. *Surfaces and Interfaces*, 106036. (IF 5.7)
4. Sabir, I., Mingxia, H., Anwar, H., Kashif, M., & Yizhu, Z. (2025). Utilization of copper-doped zinc spinel ferrites nano-composites as battery-grade electrode materials for supercapattery device applications. *Journal of Energy Storage*, *112*, 115498. (IF 8.9)
5. Aslam, A., Iqbal, M. T., Shabbir, S., Raza, S., Awaji, M. Y., Anwar, H., & Haq, Z. U. (2025). Investigating Samarium Doping Effects on the structural, Morphological,

Optical and Dielectric Properties of Zinc Cobalt Ferrites: A detailed Insight. *Solid State Sciences*, 107824. (IF 3.4)

6. Hameed Anam, Asghar Ali, Shabbir Saqib, Ahmed Ishfaq, Tareen Ayesha Khan, Khan Karim, Hussain Gulzar, Awaji Majed Yousef, Anwar Hafeez. 2024. A detailed investigation of rare earth lanthanum substitution effects on the structural, morphological, vibrational, optical, dielectric and magnetic properties of Co-Zn spinel ferrites. Frontiers in Chemistry.12 (IF 3.8)
7. Umar Mukhtar, Hafeez Anwar Yasir Jamil, Javed Iqbal (2024). Design and study of novel benzodithiazole-based hole transport materials for improved performance of perovskite solar cells: A DFT approach. Colloids and Surfaces A: Physicochemical and Engineering Aspects. Volume 702, Port 1, 5 December 2024, 134931- 134949. (I.F= 4.9)
8. Shabbir, S., Khalid, B., Sehrish, H., Iqbal, M. T., Morley, N., & Anwar, H. (2024). Exploring the Structural, Morphological, Optical, and Dielectric properties, along with Photocatalytic Performance of La-Doped $SrFeO_3$ Nanofibers. Materials Research Bulletin, 179(December 2023):112970-112987.(I.F=5.3)
9. Aqsa Islam, Syed Zulqarnain Haider, Mingqing Wang, Ahmad G. Ismail, Hafeez Anwar. (2024). Interface engineering for improved performance of perovskite solar cells using CdTe buffer layer, Results in Engineering, 23 (2024) : 102618-102628 (I.F=6)
10. Bilal, M., Ahmed, I., Shabbir, S., Subhani, M. U., Maraj, M., & Anwar, H. (2024). Structural, optical, dielectric and magnetic properties of Cd substituted copper strontium W-type hexaferrite. *Ceramics International*. 50 (10): 17228 -17241 (I.F=5.1)
11. Ali, Zahid; Jamil, Yasir; Anwar, Hafeez; Sarfraz, Raja Adil; (2024). Classification of e-waste using machine learning-assisted laser-induced breakdown spectroscopy. *Waste Management & Research*.1-13. (I.F-4.2)
12. Munawar, Sajal; Faheem, Muhammad; Bilal, Muhammad; Akram, Asad; Anwar, Hafeez; Jamil, Yasir; (2024) Elemental Analysis and Classification of Nicotine Pouches Using Machine Learning Assisted Laser Induced Breakdown Spectroscopy. Arabian Journal for Science and Engineering. 1-18. (I.F=2.6)
13. Yasin, E., Javed, Y., Imran, Z., Anwar, H., & Shahid, M. (2023). Exploration of dielectric and humidity sensing properties of dysprosium oxide nanorods. *The European Physical Journal Plus*, *138*(11):1-16, Art.NO. 1050. (I.F=2.8)

14. Saeed, T., Hanif, M. A., Rashid, U., Anwar, H., Bhatti, I. A., Alharthi, F. A., ... & Yoo, J. (2023). Utilisation of Sunflower Marble Waste Nanocomposites for Efficient Removal of Dyes from Wastewater: Synthesis, Adsorption Performance, and Characterisation. *Water, Air, & Soil Pollution*, *234* (11):1-21,Art. No. 678.(I.F=3.8)
15. Beenish Abbas [a], Aqrab ul Ahmad [b], Saqib Shabbir [a], M. Shahid [c], Tauqeer Ahmad [d], M. Helena Braga [d], Ishrat Naz [e], Fayaz Ahmad [e], Zahid Farooq [f], Hafeez Anwar [a], (2023), Enhancing photocatalytic and antibacterial performance through compositional optimization of NiO–CdO heterogeneous nanocomposite. *Ceramics International*. 49(21): 33525-33536 (I.F=5.1)
16. Ishfaq Ahmed[a], Ishrat Naz[b], Nicola Morley[c], Saqib Shabbir[a], Mudassar Maraj[d], Ahmad G. Ismaile, Hafeez Anwar[a],[*], Fayyaz Ahmad[b],[**] . Experimental and DFT investigation of structural and optical properties of lanthanum substituted bismuth ferrites (2023). Physica B: Condensed Matter. 661(2023): 414927-414,936.(I.F=2.8)
17. Shehzad, R. A., Iqbal, J., Ali, S., & Anwar, H. (2023). Quantum chemical investigation of Z-shaped heptazethrenes derivatives with detailed structural parameters and singlet fission for photovoltaic applications. *Journal of Molecular Graphics and Modelling*, *121(*January):108432-108442. (I.F=2.7)
18. Maraj, M., Anwar, H., Saba, A., Nabi, G., Shaheen, N., Ansar, N., ... & Sun, W. (2023). Synergistic effect of nanostructured CdO/Ag_3PO_4 composite for excellent electrochemical and photocatalytic applications. *Arabian Journal of Chemistry*, *16*(8):104906-104,921. (I.F=5.3)
19. Gulzar Hussain, Fahad Rehman, Ishfaq Ahmed, Yasir Jamil, Hafeez Anwar, (2023). Synthesis, characterization and machine learning assisted optical emission studies of dysprosium doped bismuth ferrites, Materials Research Bulletin, Volume 160(April 2022): 112108-112,120, ISSN 0025-5408, https://doi.org/10.1016/j.materresbull.2022.112108. (I.F=5.3)
20. Chauhdary, Y., Hanif, M. A., Rashid, U., Bhatti, I. A., Anwar, H., Jamil, Y., Alharthi, F. A., et al. (2022). Effective Removal of Reactive and Direct Dyes from Colored Wastewater Using Low-Cost Novel Bentonite Nanocomposites. Water, 14(22):1-20, 3604. MDPI AG. Retrieved from http://dx.doi.org/10.3390/w14223604 (I.F=3.0)
21. Ishrat Naz, Fayyaz Ahmad, Bakhtiar Ul Haq, Hafeez Anwar, I.B. Khadka, M.M. Alsardia, Se-Hun Kim, First-principles calculations to investigate the Electronic and Optical Properties of Hexagonal, Triclinic, and Monoclinic Structures of α-$BiFeO_3$,

Materials Science and Engineering: B, Volume 284(July): 115838-115845, 2022, ISSN 0921-5107, https://doi.org/10.1016/j.mseb.2022.115838. (I.F=3.9)

22. Gulzar Hussain, Ishfaq Ahmed, Atta Ur Rehman, Muhammad Umair Subhani, Nicola Morley, Maria Akhtar, Muhammad Imran Arshad, Hafeez Anwar. 2022. Study of the role of dysprosium substitution in tuning structural, optical, electrical, dielectric, ferroelectric, and magnetic properties of bismuth ferrite multiferroics. Journal of Alloys and Compounds. Volume 919, 2022, 165743-165754, https://doi.org/10.1016/j.jallcom.2022.165743. (I.F=5.8)
23. S. Aziz[1], S. Abdullah1, F. Latif[2*], and H. Anwar[3]. 2022. Evaluation of waterborne zinc oxide nanoparticles induced toxicity in bighead carp, hypophthalmichthys nobilis. Journal of Animal and Plant Sciences. Volume 32, No. (5): 1299-1305 (I.F=0.70)
24. Muhammad Hunain Ahmed[*1], Muhammad Tariq Javed[1], Sami Ullah Khan Bahadur[1], Muhammad Hassan Tahir[1], Muhammad Ehtisham Tariq[1], Muhammad Kasib Khan[2], Muhammad Usman Naseer[2], Hafeez Anwar[3], Narmeen Tariq[4] and Uzair Hassan[5]. (2022). In-vivo Antibacterial Action of Copper Oxide Nanoparticles Against E. coli Induced Infection in Broilers. *Pakistan Veterinary Journal*. 12(7): 2031-2044 (I.F=3.8)
25. Ahmed, I., Mustafa, G., Subhani, M. U., Hussain, G., Ismail, A. G., & Anwar, H. (2022). A detailed investigation of lanthanum substituted bismuth ferrite for enhanced structural, optical, dielectric, magnetic and ferroelectric properties. *Results in Physics*, 38(January): 105584- 105,596. (I.F=4.4)
26. Yunus, Y., Mahadzir, N. A., Mohamed Ansari, M. N., Tg Abd Aziz, T. H., Mohd Afdzaluddin, A., Anwar, H., ... & Ismail, A. G. (2022). Review of the Common Deposition Methods of Thin-Film Pentacene, Its Derivatives, and Their Performance. *Polymers*, *14*(6):1-38, 1112. (I.F=4.7)
27. Aziz, S., Abdullah, S., Anwar, H., & Latif, F. (2022). DNA Damage and Oxidative Stress in Economically Important Fish, Bighead Carp (Hypophthalmichthys nobilis) Exposed to Engineered Copper Oxide Nanoparticles. *PAKISTAN VETERINARY JOURNAL*, *42*(1), 1-8. (I.F=3.8)
28. Anwar, Hafeez; Amin, Ahmad Bin; Iqbal, Mujahid; Haseeb, Muhammad; Hanif, Sabiha; Khalid, Maryam; Sajid, Huma; Abbas, Beenish; Hassan, Muhmood Ul; Dissanayake, MAKL; (2022). Investigation of Evolution in synthesis of Graphene

Oxide and Reduced Graphene Oxide for Maximum Yield. *Iranian Journal of Chemistry and Chemical Engineering.* 41(12): 3981-3988. (I.F=1.903)

29. **Anwar, H.,** Abbas, B., Mustafa, A., Shahid, M., Ahmad, F., & Naz, I. (2022). Investigation of Doping Effect on Structural, Optical, Antibacterial and Toxicity Properties of Iron Doped Copper Oxide Nanostructures Prepared By Co-Precipitation Route. *Iranian Journal of Chemistry and Chemical Engineering* (IJCCE). 41(3): 777-786. (I.F= 1.903)
30. Dissanayake, M. A. K. L., Kumari, J. M. K. W., Senadeera, G. K. R., Jaseetharan, T., Weerasinghe, J., & **Anwar, H**. (2021). A low-cost, vein graphite/tin oxide nanoparticles based composite counter electrode for efficient dye-sensitized solar cells. Materials Science and Engineering: B, 273(2021): 115440-115452. (I.F=3.9)
31. Dissanayake, M. A. K. L., Kumari, J. M. K. W., Senadeera, G. K. R., **& Anwar, H.** (2021). Low cost, platinum free counter electrode with reduced graphene oxide and polyaniline embedded SnO_2 for efficient dye sensitized solar cells. Solar Energy, 230, 151-165. (I.F=6.0)
32. Al Islam, S., Jamil, Y., Javaid, Z., Hao, L., Amin, N., Javed, Y., ... & **Anwar, H.** (2021). A Study on Thermal Response of Nanoparticles in External Magnetic Field. Journal of Superconductivity and Novel Magnetism, 34(12), 3223-3228. (I.F=1.6)
33. Aziz, S., Abdullah, S., **Anwar, H**., Latif, F., & Mustfa, W. (2021). Effect of Engineered Nickel Oxide Nanoparticles on Antioxidant Enzymes in Freshwater Fish, Labeo rohita. Pakistan Veterinary Journal, 41(3):424-428. (I.F=3.8)
34. Iqbal, S., Subhani, M. U., **Anwar, H.,** Jamil, Y., & Rafique, H. M. (2021). Enhanced multiferroics properties of strontium substituted bismuth ferrite prepared by auto combustion method. Journal of Ovonic Research Vol, 17(6), 549-557. (I.F=0.9)
35. Syed Zulqarnain Haider, **Hafeez Anwar,** Mingqing Wang, Remarkable performance optimization of inverted p-i-n architecture perovskite solar cell with CZTS as hole transport material, Physica B: Condensed Matter, Volume 620, 2021, 413270-413282, ISSN 0921-4526,https://doi.org/10.1016/j.physb.2021.413270.(I.F=2.8)
36. Ansari, S. M., Khan, M. Z., Anwar, H., Ikram, M., Sarfraz, Z., Alam, N., & Khan, Y. (2021). Tungsten Oxide–reduced Graphene Oxide Composites for Photoelectrochemical Water Splitting. *Arabian Journal for Science and Engineering*, *46*(1), 813-825.(I.F=2.6)

37. Fakhar-e-Alam, M., Shafiq, Z., Mahmood, A., Atif, M., **Anwar, H.,** Hanif, A., ... & Ahmed, H. (2021). Assessment of green and chemically synthesized copper oxide nanoparticles against hepatocellular carcinoma. Journal of King Saud University-Science, 33(8), 101669-101676. (I.F= 3.7).
38. Syed Zulqarnain Haider, Safdar Iqbal, **Hafeez Anwar** and Jazib Ali. (2021). Theoretical Study on Performance of Heterojunction Solar Cell Using Wide Bandgap Metal Oxide Semiconductors. European Physical Journal Applied Physics. 23(11-12), 554-559. (I.F =0.6).
39. Imran Rehan, Muhammad Zubair Khan, Kamran Rehan, Sabiha Sultana, Irfan Qasim, Salah Ud Din, **Hafeez Anwar** & Sayyar Muhammad (2020): Determination of Lead and Chromium in Aloe Vera Pulp and Aloe Vera-Based Cosmetics by Laser-Induced Breakdown Spectroscopy (LIBS). *Analytical Letters*, 53 (16):2571–2584. (I.F=1.6).
40. Syed Zulqarnain Haider, **Hafeez Anwar*,** Yasir Jamil, Muhammad Shahid. (2020). A comparative study of interface engineering with different hole transport materials for high-performance perovskite solar cells. Journal of Physics and Chemistry of Solids 136 (2020): 109147-109158. (I.F=4.3).
41. Syed Zulqarnain Haider, Hafeez Anwar, Sehrish Manzoor, Ahmad G. Ismail, Mingqing Wang, A theoretical study for high-performance inverted p-i-n architecture perovskite solar cells with cuprous iodide as hole transport material, Current Applied Physics, Volume 20, Issue 9, 2020, Pages 1080-1089, ISSN 1567-1739, https://doi.org/10.1016/j.cap.2020.06.022. (I.F=2.4)
42. Sadiq, S. A., Z. Waseem, S. Hanif, S. Riaz, K. Hayat, A. I. F. Batool, Y. Jamil, M. Y. Naz, and H. Anwar. 2020. Investigation of the role of pH on structural and morphological properties of titanium dioxide nanoparticles. *IOP Conference Series: Materials Science and Engineering*. *863*(1). 12046-12,053.
43. JAVAID, R; ANWAR, H; JAMIL, Y; ABBAS, B; IQBAL, M; AHMED, S; ISLAM, A; BATOOL, F; KHALID, M; ELAHI, U; (2020). STUDY OF THE MORPHOLOGICAL TRANSFORMATION OF COPPER IODIDE NANOSTRUCTURES PREPARED BY SUGAR BEET MEDIATED ROUTE. Journal of Ovonic Research Vol. 16(5): 253-259. (I.F=0.9)
44. MUSTAFA, G; FAROOQ, Z; AHMAD, MR; ANWAR, H; AKHTAR, H; YASEEN, M; QAYYUM, MA; MAHMOOD, MIAN HR; (2020). Study of Structural and Magnetic Properties, Trivalent Cation Substitution of Cobalt base

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45. Ali, Jazib; Rasheed, Tahir; Afreen, Mutayyab; Anwar, Muhammad Tauqeer; Nawaz, Zahid; Anwar, Hafeez; Rizwan, Komal; (2020). Modalities for conversion of waste to energy—Challenges and perspectives. *Science of The Total Environment.* 727(20 July 2020): 138610-138622. (I.F=8.2)
46. Muhammad Shahid Iqbal, Mujahid Iqbal, Muhammad Haseeb, Muhammad Aftab, Ahmad Bin Amin and **Hafeez Anwar*.** (2020) Investigation of the effect of annealing temperature on photophysical properties of manganese dioxide nanostructure prepared via co-precipitation route. 863(1): 12033-12041. IOP Conference Series: Materials Science and Engineering.
47. Saher Muzaffar, Muhammad Naeem Aslam, Shafiqur Rehman, Shoaib Umer, Sheheryar Ahmed, Syeda Reeda Zahra, Wasim Ahmad and **Hafeez Anwar*.** (2020). A simple and low-cost purification method for microbial-free water using zinc oxide nanoparticles. 863(1): 12037-12046. IOP Conference Series: Materials Science and Engineering.
48. Anwar, H; Naqvi, SMB; Abbas, B; Shahid, M; Iqbal, M; Shaharyar, M; Islam, A; Batool, F; Khalid, M; Jamil, A; (2020). Investigation of the effect of annealing temperature on structural, optical and antibacterial properties of copper oxide nanoparticles prepared by facile co-precipitation route. *J Optoelectronic Biomed Mater.* 12(2): 43-50. (I.F=0.9)
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74. Abdul Shakoor, Tasneem Zahra Rizvi and **Hafeez Anwar**. Morphological, Thermal, and Conductivity Studies of Poly(methyl methacrylate)/Polyaniline Dodecylbenzenesulfonate Blends. (2009). Polymer Science A. 51(8): 898–903 (I.F=1.0).
75. Abdul Shakoor, **Hafeez Anwar** and Tasneem Zahra Rizvi. Preparation, Characterization and Conductivity Study of Polypyrrole-Pillared Clay Nanocomposites. (2008). Journal of Composite Materials. 42(20): 2101-2109 (I.F=2.3).

BOOK

1. Iqra Murad, Hafeez Anwar. (2017). Introduction to Fuel Cell Technology. LAP LAMBERT Academic Publishing. **ISBN#** 6202008954

International Book Chapters:

1.
2. Anwar, H. *et al.* (2022). Nanoradiosensitzers: Preparation, Characterization and Their Performance. In: Sharma, S.K., Nosrati, H., Kavetskyy, T. (eds) Harnessing Materials for X-ray Based Cancer Therapy and Imaging. Nanomedicine and Nanotoxicology. Springer, Cham. https://doi.org/10.1007/978-3-031-04071-9_4.
3. Rashidzadeh, H. *et al.* (2022). Harnessing the Power of Nanomaterials to Alleviate Tumor Hypoxia in Favor of Cancer Therapy. In: Sharma, S.K., Nosrati, H., Kavetskyy, T. (eds) Harnessing Materials for X-ray Based Cancer Therapy and Imaging. Nanomedicine and Nanotoxicology. Springer, Cham. https://doi.org/10.1007/978-3-031-04071-9_5.
4. Rashidzadeh, H. *et al.* (2022). Radiosensitizers in Radiation-Induced Cancer Therapy. In: Sharma, S.K., Nosrati, H., Kavetskyy, T. (eds) Harnessing Materials for X-ray Based Cancer Therapy and Imaging. Nanomedicine and Nanotoxicology. Springer, Cham. https://doi.org/10.1007/978-3-031-04071-9_2. ISBN: 978-3-031-04071-9
5. Jazib Ali, Fateh Ullah, Rizwan Haider, Ghulam Abbas Ashraf, Fahmeeda Kausar, Hamaela Razaq, Hafeez Anwar. 2022. Semiconductor Photovoltaic. Optical Properties and Applications of Semiconductors. CRC Press. eBook ISBN9781003188582.
6. Anwar, H., Abbas, B., Subhani, U., Khalid, M. (2021). Antibacterial Potential of Spinel Ferrites: Current and Future Prospects. In: Sharma, S.K. (eds) Spinel Nanoferrites. Topics in Mining, Metallurgy and Materials Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-79960-1_8
7. Anwar, Hafeez; Haseeb, Muhammad; Khalid, Mariyam; Yunas, Kamila; (2021). Graphene Reinforced PVA Nanocomposites and Their Applications. Graphene Based Biopolymer Nanocomposites. https://doi.org/10.1007/978-981-15-9180-8_6 ISBN; 978-981-15-9180-8107-134**.**
8. **Hafeez Anwar**, Yasir Javed, Iram Arif and Uswa Javeed. Facile Synthesis and Applications of Polyaniline/TiO_2 Hybrid Nanocomposites. (2019) Book Name: Hybrid Nanocomposite: Fundamental, Synthesis and Applications. Pan Stanford Publishing Pte. Ltd. Penthouse Level, Suntec Tower 3, 8 Temasek Boulevard, Singapore. ISBN 978-981-4800-34-1 (Hard cover). Pages 63-95.

9. **Hafeez Anwar,** Iram Arif, Uswa Javeed, and Yasir Javed. Titanium Dioxide-Based Nanohybridsas Photocatalysts for Removal and Degradation of Industrial Contaminants. (2019). Book Name: Nanohybrids in Environmental and Biomedical Applications, Chapter: 11, Publisher: CRC press, pp.255. DOI: 10.1201/9781351256841-11.
10. Kanwal Akhtar, Yasir Javed, **Hafeez Anwar**, Khuram Ali and Naveed A. Shad. Solid-Lipid Hybrid Nanostructures and Their Biomedical applications. (2019). Book Name: Nanohybrids in Environmental and Biomedical Applications, Chapter: 11, Publisher: CRC press, pp.255. DOI: 10.1201/9781351256841-11.
11. **Anwar H.,** Arif I., Javeed U., Mushtaq H., Ali K., Sharma S.K. (2020) Quantum Dot Solar Cells. In: Sharma S., Ali K. (eds) Solar Cells. Springer, Cham. DOI https://doi.org/10.1007/978-3-030-36354-3_9. Online ISBN 978-3-030-36354-3.
12. Kanwal Akhtar, Naveed A. Shad, M. Munir Sajid, Yasir Javed, M. Asif, Khuram Ali, **Hafeez Anwar**, Yasir Jamil and Sharma S.K. (2020) Photovoltaic-Based Nanomaterials: Synthesis and Characterization. In: Sharma S., Ali K. (eds) Solar Cells. Springer, Cham. DOI https://doi.org/10.1007/978-3-030-36354-3_9. Online ISBN 978-3-030-36354-3.
13. **Anwar H.,** Arif I., Mushtaq H. (2020) Superparamagnetic Composite-Based GO/rGO for the Multimode Biomedical Applications. In: Sharma S., Javed Y. (eds) Magnetic Nanoheterostructures. Nanomedicine and Nanotoxicology. Springer, Cham. DOI https://doi.org/10.1007/978-3-030-39923-8_3.Online ISBN978-3-030-39923-8.

TALKS IN INTERNATIONAL CONFERENCES:

1. Talk as invited speaker in the International Symposium on Emerging Trends in Physics (Organized by Department of Physics, The University of Lahore, Sargodha Campus on May 07, 2018). The title of talk was “Dye-sensitized Solar cells (DSSCs): Opportunities and Challenges”.
2. I gave an oral talk as invited speaker in One day Seminar on Applied Physics on January 25, 2017 Organized by department of Physics University of Education Faisalabad- Pakistan.). The title of talk was “Hybrid solar cells”.
3. Talk "Dye-sensitized Solar Cell (DSSCs): A non-Silicon based Solar Cell technology" given at International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (Organized by university of Kessel-Germany and UAF).

4. I am invited as guest of honor by the Department of Physics, Govt. Murray College, Sialkot on March 28, 2015 for a lecture entitled “Dye-sensitized Solar cells (DSSCs)”
5. Talk as invited speaker at International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (Organized by DAAD, Germany and UAF). The title of talk was "Dye-sensitized Solar Cell (DSSC): An Alternative to Silicon Solar Cell".
6. Talk "Carbon-based Nanostructures as Low cost Counter electrodes for Dye sensitized solar cells” given at Next Generation Solar 2013- Photovoltaics, Hamilton, Canada, May 08-10, 2013.
7. Talk "Precious-Metal Free Dye-Sensitized Solar Cells" given at Next Generation Solar 2012- Photovoltaics, Montreal, Canada, May 14-15, 2012.
8. T. Masuda, Hafeez Anwar and Ian G. Hill. "Electrodeposition of CoS on ITO substrates for the counter electrode of DSSCs". Poster presented at 10th Anniversary Symposium, Future of Materials research held at Halifax, NS, Canada, June 26-27, 2012.

Courses /Conferences/Symposia Attended

1. International Conference on ‘New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
2. 2nd International Conference on Materials Science and Nanatechnology (MSNANO-18) Organized by Department of Physics Government College University Faisalabad, Pakistan on February 19-20, 2018.
3. Three days Training Program on Statistical Methods for Researchers using R organized by department of Mathematics & Statistics, University of Agriculture Faisalabad, from August 09-11, 2017.
4. 15th International Symposium on Advanced Materials (ISAM-2017) 16-20 October 2017, National Centre for Physics, Islamabad, Pakistan.
5. 2nd international conference on impact of nanoscience on energy technologies NanoSet-2017 organized by department of Physics, CIIT Lahore on 25-27 October, 2017.
6. Symposium on advances in physics, October 24-26, 2017 Islamabad.
7. International Symposium on Advances in Physics ISAP 2017 organized by department of physics and applied mathematics PIEAS on 24-26, 2017 Islamabad.

8. International Symposium on ‘Applied Materials & Nanodevices’ 14-16 November, 2017 NILOP, Islamabad.
9. One day Symposium on Nanotechnology; Current Trends and Futue Prospects in Pakistan Organized by National Institute for Biotechnology and Genetic Engineering (NIBGE) Faisalabad, Pakistan on November 15, 2017.
10. Workshop on “Technical & Patent writing” on 28th January, 2017. Organized by Department of Chemistry, University of Agriculture, Faisalabad-Pakistan.
11. International Conference on Materials Science and Technology. February 18-19, 2017. Organized by Department of Physics, Government College University Faisalabad, Pakistan.
12. NOOR 2nd International Symposium on “Applied Materials & Nanodevices”. 14-16 November, 2016. Nilore Islamabad, Pakistan.
13. International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (organized by university of Kessel-Germany and UAF)
14. International Scientific Spring-2016, March 07-11, 2016. Jointly organized by the National Centre for Physics Pakistan and The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy.
15. One day symposium on nanotechnology research in Pakistan: Recent Trends and Developments. December 16, 2015. Organized by National Institue for Biotechnology and Genetic engineering (NIBGE), Faislaabad.
16. International Workshop on Renewable Energy Technologies in Pakistan. November 04-06, 2015. Organized by the University of Agriculture Faisalabad.
17. One Day Symposium on Nanotechnology Research in Pakistan: Recent trends and developments at NIBGE, Faisalabad. December 16, 2015.
18. International conference on climate change issues and conference of parties (COP 21). May 19, 2015. Organized by the University of Agriculture Faisalabad.
19. Celebrating Light (IYL-2015, Abn Al-Haytham). 2-3 February, 2015 Jointly Organized by National Centre for Physics, Islamabad and Quaid-i-Azam University, Islamabad.
20. Seminar on “Wheat Economy”. January 05, 2015. Organized by the University of Agriculture Faisalabad.
21. International Workshop on Renewable Energy Technologies in Pakistan. November 04-06, 2015. Organized by the University of Agriculture Faisalabad.

22. "First Canadian Graduate School for Photovoltaics", Ottawa, Canada, May 16-18, 2012.
23. Training course on “Safety measures in the use of radiation in agriculture and biology” held at Nuclear Institute for Agriculture and Biology (NIAB), Faisalabad, Pakistan.
24. General Meeting and Research day of Institute for Research in Materials (IRM), Halifax, NS, Canada, June 25, 2013.
25. Next Generation Solar 2013-Photovoltaics, Hamilton, Canada, May 08-10, 2013.
26. 10th Anniversary Symposium "The Future of Materials Research", Halifax, NS, Canada, June 26-27, 2012.
27. "Next Generation Solar 2012- Photovoltaics", Montreal, Canada, May 14-15, 2012.
28. Symposium "Renewable Energy, Advanced Materials and Sustainability". Halifax, NS, Canada, June 28, 2011.

PARTICIPATIONS/PRESENTATIONS/PUBLICATIONS IN INTERNATIONAL CONFERENCES/ SYMPOSIA:

1. Muhammad Yasin Naz, Shazia Shukrullah, Irfan Toqeer, Zahid Hussain and **Hafeez Anwar**. Polymer coating remediation of nitrogen losses from conventional urea. International Conference on ‘New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
2. Khushnuma Zulfiqar, Muhammad Yasin Naz, **Hafeez Anwar** and Ayesha Younus. Heat treatment effects on crystal size of Mn-Zn ferrites prepared by Co-precipitation method. International Conference on ‘New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
3. Muhammad Arif, Khawar Ghafoor, Mubeen Asghar, Muhammad Yasin Naz and **Hafeez Anwar**. Integrated energy systems. International Conference on ‘New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
4. Mahwish Mukhtar, Yasir Javed, Sanam, Naveed Akhtar Shad, **Hafeez Anwar**, Yasir Jamil and Khuram Ali. Structural and spectroscopic investigation of MnO flower type surfaces nanoparticles. International Conference on ‘New Frontiers in Experimental

and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.

5. Madiha Farid, Muhammad Bilal, Zia ul Haq, **Hafeez Anwar**, Ayesha Younus and Yasir Jamil. Elemental identification of printed circuit boards using LIBS. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
6. Sehar Jabeen, M. Bilal, **Hafeez Anwar**, Zia ul Haq and Yasir Jamil. Laser induced breakdown spectroscopy of bismuth ferrite. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
7. Lubna Rauf, Yasir Javed, **Hafeez Anwar**, Ayesha Younus and Yasir Jamil. Effect of nanoparticles on DNA damage and inhibition. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
8. Sobia Sattar, **Hafeez Anwar**, Yasir Javed and Yasir Jamil. Investigation of photo degradation of yellow PGF dye with lanthanum orthoferrite as photocatalyst. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
9. Saher Muzaffar, Sumbla Shafeeq, Sidra Ghafoor, **Hafeez Anwar**, Yasir Jamil and Yasin Naz. Synthesis, characterization of zinc oxide (ZnO) and its application for water purification. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
10. Rabia Javaid, Syed Zulqarnain Haider, **Hafeez Anwar** and Yasir Jamil. Synthesis and characterization of copper iodide nanoparticles: A hole transport material (HTM) for perovskite solar cell. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
11. Arslan Majeed, Wajahat Ali, Ahmad Bin Amin, **Hafeez Anwar**, Yasir Javed, M. Zubair Khan and Zahid Qamar. Cobalt based ZnO synthesis by electro-spinning method. International Conference on 'New Frontiers in Experimental and Theoretical

Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.

12. Ahmad Bin Amin, Wajahat Ali, Arslan Majeed, **Hafeez Anwar**, Yasir Jamil, Shabir Mahr and Javed Iqbal. Structural and morphological properties of grapheme oxide prepared by modified hummer's method. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
13. Ayesha Khan, Hina Saeed, **Hafeez Anwar** and Ghulam Mustafa. Structural and optical properties of cobalt doped zinc oxide nanoparticles prepared by co-precipitation route. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
14. Ayesha Khan, Huma Mushtaq, **Hafeez Anwar**, Ayesha Younus and M. Ahmad Raza. Structural and optical properties of copper doped zinc oxide nanoparticles prepared by co-precipitation route. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
15. Raza Hussain, Zia ul Haq, Yasir Jamil and **Hafeez Anwar**. Effect of magnetic field and nanoparticles on germination, seedling growth and biochemical parameters of papaya seeds (Carica papaya). International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
16. Hadia Amjad, Khuram Ali, **Hafeez Anwar** and Yasir Jamil. Antireflection coating to increase the efficiency of solar cell. International Conference on 'New Frontiers in Experimental and Theoretical Physics organized by department of Physics, University of Agriculture Faisalabad, Pakistan on 16-17 April, 2018.
17. **Hafeez Anwar**, Shaukat Ali Sadiq, Zainab Waseem, Yasir Javed, Yasir Jamil and G. Mustafa. Investigation of the role of pH on structural and morphological properties of titanium dioxide (TiO_2) nanoparticles. 2nd International Conference on Materials Science and Nanatechnology (MSNANO-18) Organized by Department of Physics Government College University Faisalabad, Pakistan on February 19-20, 2018.
18. **Hafeez Anwar**, Yousuf Ali, Ayesha, Yasir Javed, Yasir Jamil and G. Mustafa. A simple and low-cost purification method for microbial-free water using titanium dioxide nanoparticles. 2nd International Conference on Materials Science and

Nanatechnology (MSNANO-18) Organized by Department of Physics Government College University Faisalabad, Pakistan on February 19-20, 2018.

19. Ghulam Mustafa, M. U. Islam, M. Imran Arshad and **Hafeez Anwar**. Influence of the divalent and trivalent cations on the structural and magnetic properties of the CoCr0.04Tbx Fe1.96-xO4 ferrite prepared by sol-gel method. 2nd International Conference on Materials Science and Nanatechnology (MSNANO-18) Organized by Department of Physics Government College University Faisalabad, Pakistan on February 19-20, 2018.
20. Ghulam Mustafa, M. U. Islam, M. Imran Arshad and **Hafeez Anwar**. Role of Ho+3 ions substitution on the structural and magnetic properties of the CoCr0.04Tbx Fe1.96-xO4 ferrite prepared by sol-gel method. 2nd International Conference on Materials Science and Nanatechnology (MSNANO-18) Organized by Department of Physics Government College University Faisalabad, Pakistan on February 19-20, 2018.
21. **Hafeez Anwar**, Shaukat Ali Sadiq, Zainab Waseem, Yasir Jamil. Investigation of the Role of PH on Structural and Morphological Properties of Titanium Dioxide (TiO2) Nanoparticles. 15th International Symposium On Advanced Materials (ISAM-2017) 16-20 October 2017, National Centre for Physics, Islamabad, Pakistan.
22. **Hafeez Anwar**, Bushra Chand Rana, Yasir Jamil, Yasir Javed, Iqra Aslam. Synthesis of ZnO Nanoparticles and their Application for Photocatalytic Degradation of Rhodamine B. 15th International Symposium On Advanced Materials (ISAM-2017) 16-20 October 2017, National Centre for Physics, Islamabad, Pakistan.
23. **Hafeez Anwar**, Yousaf Ali, Ayesha, Yasir Jamil. A Simple and Low-Cost Purification Method for Microbial-Free Water Using Titanium Dioxide Nanoparticles. 15th International Symposium On Advanced Materials (ISAM-2017) 16-20 October 2017, National Centre for Physics, Islamabad, Pakistan.
24. Effect of ZnO on Photocatalytic degradation of rhodamine B and inhibition activity of C.Coli biofilm. 2nd international conference on impact of nanotechnology on energy technologies NanoSet-2017 organized by department of Physics, CIIT Lahore on 25-27 October, 2017.
25. Surface hardness measurement by laser induced breakdown spectroscopy. Muhammad Bilal, Yasir Jamil, **Hafeez Anwar** and Zahid Ali. Symposium on advances in physics, October 24-26, 2017 Islamabad.

26. Measurement of thermal properties of laser treated sunflower and cumin seeds. Javeria Anwar, Iftikhar Ahmad, Wajeha Wahab, Yasir Jamil, **Hafeez Anwar** and M. Shahid. International Symposium on Advances in Physics ISAP 2017 organized by department of physics and applied mathematics PIEAS on 24-26, 2017 Islamabad.
27. Rabia Javaid, Syed Zulqarnain Haider, **Hafeez Anwar** and Yasir Jamil. Sugar beet mediated synthesis of copper iodide nanoparticles and their characterization. NOOR 3RD International Symposium on 'Applied Materials & Nanodevices' 14-16 November, 2017 NILOP, Islamabad.
28. Sobia Sattar, **Hafeez Anwar**, Yasir Javed and Yasir Jamil. Investigation of photo degradation of Yellow PGF dye with Lanthanum orthoferrite as photocatalyst. NOOR 3RD International Symposium on 'Applied Materials & Nanodevices' 14-16 November, 2017 NILOP, Islamabad.
29. Fabrication and performance evaluation of solar tunnel dryer. Bushra Sana Idrees, Ayesha Israr, Yasir Jamil, Imran Shaukat, **Hafeez Anwar**, Ramiza and Iqra Aslam. International workshop on sustainable energy solutions for community development in Pakistan (8-9 Nov. 2016) organized by university of Kessel-Germany and UAF.
30. Effective use of solar energy in the synthesis of nanostructured material. Tamveel Mujahid, Yasir Jamil, Urva, Memoona Naz, **Hafeez Anwar**, Yasir Javed, Bushra Chand Rana, Ayesha Younis and Zia-ul-Haq. International workshop on sustainable energy solutions for community development in Pakistan (8-9 Nov. 2016) Organized by university of Kessel-Germany and UAF.
31. Bio-transformation of inorganic nanoparticles in the model biological medim. Hafiz M. Naeem Ullah, Jawaria, Yasir Javed, Yasir Jamil, Khuram Ali, Zahid Imran and **Hafeez Anwar**. 3rd conference on Frontiers of nanaoscience and technology (October 25-27, 2016) Organized by nanomaterials research group, Physics division. Pakistan institute of nuclear science and technology (PINSTECH) Nilore, Islambad, Pakistan.
32. Synthesis, characterization of of Titanium dioxide-zinc oxide nanocomposits for dye-sensitized solar cells. Hafiz M. Umair, Khuram Ali, Yasir Javed, Yasir Jamil and **Hafeez Anwar**. International workshop on sustainable energy solutions for community development in Pakistan (8-9 Nov. 2016) organized by university of Kessel-Germany and UAF.
33. Response surface methodology (RSM) and optimization of loading and time of cooking in solar cooker. Khuram Ali, Yasir Jamil, Muhammad Raza Ahmad, **Hafeez**

Anwar, Yasir Javed, Tamveel Mujahid and Urva. International workshop on sustainable energy solutions for community development in Pakistan (8-9 Nov. 2016) organized by university of Kessel-Germany and UAF.

34. Synthesis and screen printing of ZnO thin films for solar cell applications. Khuram Ali, Nouman Amjad, Yasir Javed, Yasir Jamil and **Hafeez Anwar**. International workshop on sustainable energy solutions for community development in Pakistan (8-9 Nov. 2016) organized by university of Kessel-Germany and UAF.
35. Synthesis, characeterization of cobalt sulphide nanoparticles for counter electrode of dye-sensitized solar cells. Ali Akbar, Shumaila Ashraf, Khuram Ali, Yasir Javed, Yasir Jamil and **Hafeez Anwar**. International workshop on sustainable energy solutions for community development in Pakistan (8-9 Nov. 2016) organized by university of Kessel-Germany and UAF.
36. Synthesis and characterization of cuprous oxide nanoparticles for solar cell applications. Almas Younus, Syed Zulqarnain Haider, **Hafeez Anwar** and M Raza Ahmad. International workshop on sustainable energy solutions for community development in Pakistan (8-9 Nov. 2016) Organized by university of Kessel-Germany and UAF.
37. Synthesis and characterization of molybdenum disulfide nanoparticles for solar cell applications. Bushra Naseer, Zunaira Noureen, Yasir Jamil and **Hafeez Anwar**. International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (Organized by university of Kessel-Germany and UAF)
38. Fabrication and performance evaluation of flat plate collector based hybrid solar cooler. Ayesha Israr, Jawad Latif, Muhammad Bilal, Yasir Jamil, **Hafeez Anwar**, Zia-ul-haq and Ayesha Younis. International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (organized by university of Kessel-Germany and UAF)
39. Synthesis of polyanilline-graphite composits for counter electrodes of sye-sensitized solar cells. Asma Kausar, Faiza Mustafa, Muhammad Zaighum Hanif and **Hafeez Anwar**. International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (organized by university of Kessel-Germany and UAF)
40. Fabrication and performance study of low cost solar food dehydrator. Urva, Javeria Anwar, Tamveel Mujahid, Yasir Jamil, **Hafeez Anwar** and Ramiza. International

workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (organized by university of Kessel-Germany and UAF)

41. Study the performance of solar cells at various illumination levels. Muhammad Bilal Chishty, Sarmad Ali, Syed Zulqarnain Haider and **Hafeez Anwar**. International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (organized by university of Kessel-Germany and UAF)
42. Muhammad Sulman Afzal, Syed Zulqarnain Haider and **Hafeez Anwar.** International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (organized by university of Kessel-Germany and UAF)
43. Synthesis of ZnO/CuO hierarchical nanostructures for solar cell applications. Ayesha, Mariam Noureen, Zainab Waseem, Yasir Jamil and **Hafeez Anwar**. International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (organized by university of Kessel-Germany and UAF)
44. Synthesis, characterization of Zinc oxide nano particles for dye-sensitized solar cells. Asma Noshen, Iqra Chaudhary, Rabia Javaid, and **Hafeez Anwar**. International workshop on sustainable energy solutions for community development in Pakistan. 8-9 Nov. 2016. (organized by university of Kessel-Germany and UAF)
45. Laser Induced Breakdown Spectroscopy of Pure Silicon Using Fundamental Mode of Nd: YAG Laser. Iqra Irfan, Muhammad Qaiser Zakaria, Muhammad Najeeb ullah Shah, Yasir Jamil, Jazib Ali, **Hafeez Anwar** and Muhammad Farhan. International Scientific Spring-2016, March 07-11, 2016.
46. Study on the bacterial biofilm inhibition and cytotoxicity of refined crystalline structure of TiO2 nanoparticles. M. R. Ahmad, S. Iftikhar, M. Q. Zakaria, T. Hussain, M. Shahid, **H. Anwar**, M. Yaseen, Y. Jamil. 14th International Symposium on Advanced Materials, Oct. 12-16, 2015. Held at NCP, Islamabad.
47. Monitoring of the particle size of MnZn spinel ferrite nanoparticles subjected to ultraviolet radiation. Ramiza, A. Nasim, J. Yasir, K. Kashif, S. Amira, Nayab, M. Yaseen, **H. Anwar**. 14th International Symposium on Advanced Materials, Oct. 12-16, 2015. Held at NCP, Islamabad.
48. Influence of light intensity on electrical parameters of inorganic solar cells. Syed Zulqarnain Hyder and **Hafeez Anwar.** International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (Organized by DAAD, Germany and UAF).

49. Designing and fabrication of spin coater: A necessary tool to deposit thin films of nano-materials for solar cell applications. Gulzar Ahmad, **Hafeez Anwar**. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (organized by DAAD, Germany and UAF).
50. Synthesis, characterization of metal oxide-activated carbon composites for solar cell applications. Nadeem Asif, M. Shahzad, Zagum Hanif, **Hafeez Anwar**, M. Raza Ahmad. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (organized by DAAD, Germany and UAF).
51. PLZT anti-ferroelectric thin films for photovoltaic applications. M. Yaseen, Y. Jamil, **H. Anwar,** M. R. Ahmad. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (Organized by DAAD, Germany and UAF).
52. Fabrication and performance study of a portable solar dehydrator. Sana Amin, Yasir Jamil, **Hafez Anwar**, Zia ul Haq and M. Zubair Sultan. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (Organized by DAAD, Germany and UAF).
53. Solar assisted facile synthesis of ZnO nanoparticles. Mamoona Naz, Yasir Jamil, **Hafeez Anwar**, M. Qaiser Zakariya and M. Yaseen. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (Organized by DAAD, Germany and UAF).
54. Preparation of titanium dioxide pastes for photoanode of dye sensitized solar cells. Shamaila Noreen, Iqra Aslam, Shaukat Ali Sadiq, Yousaf Ali**, Hafeez Anwar** and Yasir Jamil. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (organized by DAAD, Germany and UAF).
55. Synthesis and characterization of iron oxide-titanium dioxide composites for dye sensitized solar cells. Umair Yasin, Zaghum Tanveer, Adnan Mustafa, **Hafeez Anwar**, Yasir Jamil, M. Raza Ahmad and M. Yaseen. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (organized by DAAD, Germany and UAF)
56. Carbon nanotube thin films counter electrodes for dye-sensitized solar cells. **Hafeez Anwar** and Ian G. Hill. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (organized by DAAD, Germany and UAF)

57. Synthesis and characterization of cadmium sulfide, a step towards cadmium sulfide thin films as window material for solar cells. Amina Ghaffar, Anum Jabeen, Sidra Tul Muntaha, **Hafeez Anwar** and Yasir Jamil. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (organized by DAAD, Germany and UAF)
58. Deposition of nano TiO2 thin films using spin coating technique for solar cell applications. Javed Iqbal, Gulzar Ahmad, H. M. Umair Arshad, **Hafeez Anwar**, Yasir Jamil and M. Yaseen. International workshop on renewable energy technologies for community development in Pakistan. 4-6 Nov. 2015. (organized by DAAD, Germany and UAF)
59. Study on crater formation and laser ablation of nano crystallite single phase ferrites. Muhammad Raza Ahmad, Yasir Jamil, **Hafeez Anwar** and Tousif Hussain. Fourth International Conference on Multifunctional, Hybrid and Nanomaterials. 9-13 March, 2015, Spain.
60. Determination of Plasma Temperature and Electron Number Density of Silver Alloys by Laser Induced Breakdown Spectroscopy Using Fundamental Mode of Nd:YAG Laser. Harse Sattar, Yasir Jamil, Qaiser Zakria, Muhammd Raza Ahmad and **Hafeez Anwar**. International Scientific Spring March 16-20, 2015 National Centre for Physics, Islamabad, Pakistan. (Page:95)
61. Laser induced Breakdown Spectroscopy of Silver alloys using 532 nm Laser. Harse Sattar, Yasir Jamil, Muhamad Qaiser Zakria, M.Raza Ahmad and **Hafeez Anwar**. International Scientific Spring March 16-20, 2015 National Centre for Physics, Islamabad, Pakistan. (Page:98)
62. Studies of Chromium plasma using Nd:YAG laser. Muhammad Khuram Shahzad, Yasir Jamil, Harse Sattar, Qaiser Zakria, M.Raza Ahmad and **Hafeez Anwar**. International Scientific Spring March 16-20, 2015 National Centre for Physics, Islamabad, Pakistan. (Page: 99)
63. Synthesis, Characterization of Titanium Dioxide and Study of Its Photocatalytic Activity. Qasim Ali, **Hafeez Anwar**, Muhammad Shahid, Yasir Jamil, Muhammad Yaseen and Zia-ul-Haq. 14th International Symposium on Advanced Materials, 12-16 October 2015, National Centre for Physics, Islamabad, Pakistan.
64. Synthesis of nickel zinc ferrites nanoparticles through co precipitation and study the effect of annealing on its structural properties. Gulraiz Fatima, **Hafeez Anwar**, Muhammad Yaseen, Muhammad Raza Ahmad and Yasir Jamil. 14th International

Symposium on Advanced Materials, 12-16 October 2015, National Centre for Physics, Islamabad, Pakistan.

65. Effect of top electrode on sol-gel derived PZT film for flat panel display applications. Muhammad Yaseen, Yasir Jamil, **Hafeez Anwar**, Muhammad Saleem. 14th International Symposium on Advanced Materials, 12-16 October 2015, National Centre for Physics, Islamabad, Pakistan.
66. Effect of Different Physical Treatments on Surface Morphology and Structural Properties of Chemically Synthesized Barium hexa Ferrite. Muhammad Qaiser Zakaria, Rehan Ahmed, Yasir Jamil, Muhammad Yaseen and **Hafeez Anwar**. 14th International Symposium on Advanced Materials, 12-16 October 2015, National Centre for Physics, Islamabad, Pakistan.
67. Dye-Sensitized Solar Cells (DSSCs): Opportunities and Challenges. **H. Anwar**
68. Effect of ZnO Addition on the Structural Properties of CoZn Ferrite Produced Through Co-Precipitation Method. M. N. U. Shah, U. Zaheer, I. Irfan, M. Q. Zakria, M. Yaseen, A. Younus, **H. Anwar**, Y. Jamil
69. Study on the Bacterial Biofilm Inhibition and Cytotoxicity of Refined Crystalline Structure of TiO2 Nanoparticles M. R. Ahmad, S. Iftikhar, M. Q. Zakaria, T. Hussain, M. Shahid, **H. Anwar**, M. Yaseen, Y. Jamil
70. Monitoring of the Particle Size of Mn–Zn Spinel Ferrite Nano Particles Subjected to Ultraviolet Radiation Ramiza, A. Nasim, J.Yasir, K. Kashif, S.Amira, Nayab, M. Yaseen, **H. Anwar**
71. Fabrication and performance study of a portable solar dehydrator. Sana Amin, Yasir Jamil, **Hafeez Anwar**, Zia ul Haq and M. Zubair Sultan. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
72. Solar assisted facile synthesis of ZnO nanoparticles. Memoona Naz, Yasir Jamil, **Hafeez Anwar**, M. Qaiser Zakariya, M. Yaseen. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
73. Influence of light intensity on electrical parameters of inorganic solar cells. Syed Zulqarnain Hyder and **Hafeez Anwar**. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
74. Designing and fabrication of spin coater: A necessary tool to deposit thin films of nano-materials for solar cell applications. Gulzar Ahmad, **Hafeez Anwar**.

International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)

75. Synthesis, characterization of metal oxide-activated carbon composites for solar cell applications. Nadeem Asif, M. Shahzad, Zagum Hanif, **Hafeez Anwar**, M. Raza Ahmad. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
76. Preparation of titanium dioxide pastes for photoanode of dye-sensitized solar cells. Shamaila Noreen, Iqra Aslam, Shaukat Ali Sadiq, Yousaf Ali, **Hafeez Anwar**, and Yasir Jamil. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
77. Carbon nanotube thin film counter electrodes for dye-sensitized solar cells. **Hafeez Anwar**, Ian G. Hill. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
78. Synthesis and characterization of copper oxide for solar cell applications. M. Sajid, Amna Bibi, **Hafeez Anwar** and M. Raza Ahmad. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
79. Synthesis and characterization of iron oxide-titanium dioxide composites for dye-sensitized solar cells. Umair Yasin, Zaghum Tanveer, Adnan Mustafa, **Hafeez Anwar**, Yasir Jamil, M. Raza Ahma and M. Yaseen. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
80. Deposition of nano-TiO2 thin films using spin coating technique for solar cell applications. Javed Iqbal, Gulzar ahmad, H. M. Umair Arshad, **Hafeez Anwar**, Yasir Jamil and M. Yaseen. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015)
81. Synthesis and characterization of cadmium sulfide: A step towards cadmium sulfide thin films as window material for solar cells. Amina Ghaffar, Anum Jabeen, Sidra Tul Muntaha, **Hafeez Anwar** and Yasir Jamil. International Workshop on Renewable Energy Technologies for Community Development in Pakistan (November 04-06, 2015).

ORGANIZING OF SEMINARS/SYMPOSIA/WORKSHOPS

1. Organized the “International Conference on ‘New Frontiers in Experimental and Theoretical Physics” on 16-17 April, 2018, department of Physics, University of Agriculture Faisalabad, Pakistan.
2. Organized the “2nd International Conference on Materials Science and Nanatechnology (MSNANO-18)” on February 19-20, 2018. Department of Physics, Facaulty of sciences, University of Agriculture, Faisalabad, Pakistan.
3. Organized One Day Symposium on “Emerging Trends in applied Physics” on December 3, 2016, at New Senate Hall, University of Agriculture Faisalabad.
4. Organized seminar on “Personality Development and Grooming” on November 26, 2016, at Old senate hall, University of Agriculture Faisalabad.
5. Organized seminar on “Nanotechnology: Recent Trends and Future Prospects” on 23 April, 2016, at New Senate Hall, University of Agriculture Faisalabad.
6. Organized the “Training Workshop on the use of Mendaley: A reference management tool” on 19th March, 2016 at Video Conferencing Room, University of Agriculture Faisalabad.
7. Organized the seminar on “New Horizons and Recent Advancements in Physics” on 24 April, 2015, at New Senate Hall, University of Agriculture Faisalabad.
8. Organized the seminar on “Research and Collaboration opportunities with KRL” on 22 April, 2015, at Chemistry Lecture Theater, University of Agriculture Faisalabad.
9. Organized the seminar on “Introduction to Pulsed Laser Deposition and Vacuum Technologies” on 11 March, 2015, at Video Conferencing Room, University of Agriculture Faisalabad.
10. Organized the “Workshop on reference management in scientific writings” on 25th October, 2014 at Video Conferencing Room, University of Agriculture Faisalabad.
11. This activity was focused on imparting practical training regarding the use of online resources to manage and use the literature effectively. There were more than 100 participants in the activity including faculty members from various departments of UAF as well as from other institutions like GC W, Government Post graduate colleges, etc. along with the research students of UAF.
12. Organized the visit of and lecture by the Director National Institute of Lasers and Applied Sciences (NILOP), Pakistan Atomic Energy Commission Islamabad on 20th October, 2014. Title of lecture: “Research activities at NILOP with special emphasis on the use of lasers in life sciences”.

13. This lecture was the follow up activity of the MOU between UAF (through Laser Spectroscopy Lab., Department of Physics) and NILOP Islamabad for mutual research between the two institutions.

OTHER SCHOLARLY ACTIVITIES

1. **Reviewer of Peer Reviewed Journals**
    - Materials research express
    - Solar Energy
    - Journal of Superconductivity and Novel Magnetism
    - Pakistan Journal of Agriculture
2. **HEC approved supervisor**

    I am working as HEC approved supervisor and I got a score of 2.63 in RPA 2014-2015 of PCST report.
3. **Post Graduate Thesis Evaluation of other Universities**

    I evaluated following M.Phil. thesis as external examiner

    i) Department of Physics, Bahauddin Zakariya University, Multan.

Sr. No.	Name of Student	Thesis Title
1	Muhammad Irfan Mansha	Synthesis and characterization of Lanthanum substituted M-type Barium Hexa Ferrites
2	Afza Rao	Dielectric properties of polypyrrole Nickle Zirconium Alloy composites
3	Muhammad Sufian Liaqat	Structural and dielectric properties of polypyrrole carbon nanotubes (PPy-CNTs) composites
4	Iftikhar Hussain Piracha	Synthesis and characterization of Polyaniline Nickel Zirconia (PANI-NiZr) composites
5	Nadeem Anwar	Structural, morphological and electrical properties of polyaniline carbon nanotubes (PANI-CNTs) composites

ii) Department of Applied Physics, FUUAST, Islamabad.

Sr. No.	Name of Student	Thesis Title
1	Syed Waqas Ahmad Zaidi	Electrical and optical properties of vanadium doped

		ZnO prepared by solid state reaction technique.
2	Ghulam Hassan	Active screen cage plasma nitrinding of AISI 304 in N_2/H_2/Ar discharge.
3	Mehnaz Shafiq	Ferromagnetic studies and applications of nano fabricated Zinc Oxide.

4. **Citations data**

   Total number of citations (up to March 31, 2017): **89**

   (According to the Scholar.Google.com)

   My most cited Article: The article entitled, "Vertically-aligned carbon nanotube counter electrodes for dye-sensitized solar cells" by Hafeez Anwar, AE George, IG Hill in the journal Solar Energy (Impact Factor 3.541) has been cited **55** times after its publication in 2013.

5. **Editorial Work for Scholarly Journals:**
   a. Reviewer of Frontiers in Physics (It is a community-rooted open access publisher).
   b. Reviewer Journal of Saudi Chemical Society (Impact Factor:1.978)

Advisory, Administrative and Community Services:

1. Convener of Organic Solar Cells Group, Department of Physics, University of Agriculture Faisalabad.
2. Convener of the Repair Committee, Department of Physics, University of Agriculture Faisalabad.
3. Convener of the Tender Committee, Department of Physics, University of Agriculture Faisalabad.
4. Dean nominee for the evaluation of Technical Reports of M.Sc. Physics students (230 students).
5. Convener of the Purchase Committee, Department of Physics, University of Agriculture Faisalabad.
6. Coordinator/Paper Setter of paper-II for the PhD comprehensive exam (written part).
7. Chairman, Board of Examiners for Ph.D. Comprehensive Examination –Oral part. For students (Syed Zulqarnain Haider, Zahid Ali, Muhammad Zagum Hanif, Muhammad Zubair Sultan and Muhammad Sarfraz).

8. Member, Board of Examiners for Ph.D. Comprehensive Examination –Oral part. For student (Muhammad Qaiser Zakaria).
9. Member of departmental board of studies, Department of Physics, University of Agriculture Faisalabad.
10. Member Curriculum Committee, Department of Physics, University of Agriculture Faisalabad.
11. Graduate Advisor, Department of Physics, University of Agriculture Faisalabad
12. Member of synopsis scrutiny committee, Department of Physics, University of Agriculture Faisalabad.
13. In charge of Chemical Stock, Department of Physics, University of Agriculture Faisalabad.
14. In charge of Learning Management System (LMS) for Department of Physics, University of Agriculture Faisalabad.
15. Administrator/Coordinator of the departmental website, Department of Physics, University of Agriculture Faisalabad.