# CURRICULUM VITAE


## SYED FARHAN HASANY

**Assistant Professor (Chemistry),**
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**Google citations: https://scholar.google.com/citations?user=SxI3dAUAAAAJ&hl=en**


## BIOGRAPHY

After finishing my two and half years **Post- Doctoral Research** work in 2016, I am working as **Assistant Professor** in the Department of Chemistry, NED UET Pakistan. I received my **Ph.D. (Chemical Engineering in Advanced Materials)** in March 2014, from the Faculty of Chemical & Natural resources Engineering, University Malaysia Pahang. Major share of my academics and research work involves Nanotechnology and Environmental Chemistry and respected applications. I am fully aware of different nanotechnology based synthetic and application techniques and understand different characterization techniques extensively, which include Spectroscopy (FTIR, TEM, SEM, and X-ray Photon), X-ray diffraction (XRD), Thermal analysis (TGA), NMR, Zeta potential and Magnetic data analysis.

I am experienced in planning, managing and producing a high quality domestic and industrial purpose drinking and desalinated water by latest reverse Osmosis technique. I have worked with many Industrial Organizations for the application of anti-corrosion products, industrial cleaners, anti-skid polymeric coatings and Lab grade fine chemicals, in Pakistan. I have also been a part of British Aviation industry for five years, to serve a chemical analysis and security job for aviation industry.

## PERSONAL DETAILS

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| Profession | : | Chemical Engineering /Chemistry /Advanced Materials |
| Place of Birth | : | Karachi, Pakistan |
| Nationality | : | Pakistani |
| Sex | : | Male |
| Marital Status | : | Married |

## PROFESSIONAL AFFILIATION

Associate Member of Royal Society of Chemistry (RSC), United Kingdom.

Ex Member of Internationalization Task Force Committee, UMP, Malaysia.

## ACADEMICS

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| Ph.D Chemical Engineering | University of Malaysia Pahang | 2014 | 4GPA (Pass) |
| M.S.c (Analytical Chemistry) | Karachi University, Karachi., Pakistan | 1998 | 1st Division |
| B.S.c HONS(Chemistry) | Karachi University, Karachi., Pakistan | 1997 | good II Division |

## ASSOCIATED SUBJECTS STUDIED IN ACADEMICS

Microbiology related to soil and water, human immunology, bacteriology and virology. Biochemistry of Human chemical reactions involving Amino acids and peptides, Proteins Structure, Effects of Inhibitors and Enzyme kinetics.

## MASTERS FINAL YEAR PROJECT

My M.Sc. final year Project was based on Environmental study of Mercury estimation, titled **'*Analytical Estimation of Mercury in Human Hair'*,** by Atomic Absorption Spectroscopy technique. The major focus was on exposure route of mercury from electricity generating Plants using Mercury Electrodes in generation.

## WORK EXPERIENCE

### NATIONAL ENGINEERING DEV.CORP March 1998 to January 2000

Worked as 'Assistant Manager Applications', from March 1998 to January 2000. Job responsibilities included planning, supervision and application of acid and water proofing coatings, rubberizing in different production units of Pakistan Steel Mills and Fertilizer Sector. It also involves assistance in production, design & consultation of the surface protection for industrial and shipping engines.

**LABCO FINE CHEMICALS** **February 2000 to November 2000**

Worked as 'Executive Manager' form February 2000 to November 2000.Responsibilities included SUPERVISION OF DIFFERENT PROJECTS IN DIFFERENT ZONES OF PAKISTAN, specifically Fertilizer industry in Pakistan. It also involves the assistance in production and analysis of different industrial and analytical grade fine chemicals.

**BLUE WATER BOTTLERS, PAKISTAN** **March 2001 to September 2005**

Worked as 'Senior Manager Quality Control and Production' from March 2001 to Sep 2005.Work responsibilities included production and quality assurance of variety of industrial, drinking, and medicinal purpose water. It also involves the assistance in sorting out different marketing projects and their strategies for managing the supplies all over the city of Karachi.

**BRISTOL INTERNATIONAL AIRPORT, UK** **October 2005 till February 2010**

I have worked as an 'Aviation Security agent' in British aviation industry, United Kingdom. My work responsibilities included: the NSM liquid testing procedures, terrorist threat and precaution analysis, x-ray screening methods for explosive detection, and general security management.

**UNIVERSITY MALAYSIA PAHANG** **April 2014 till July 2014**

**Research Officer**, in the Center of Excellence for Advanced Research in Fluid Flow (CARIFF), University of Malaysia Pahang.

**UNIVERSITY MALAYSIA PAHANG** **Nov. 2014 till Nov.2016**

**Postdoctoral Research Fellow**, Faculty of Chemical and Natural Resource Engineering. University of Malaysia Pahang.

**NED UNIVERSITY OF ENG & TECHNOLOGY** **June 2017 till now**

**Assistant Professor** Position in the Department of Chemistry, NED UET, Karachi.

**Ph.D. RESEARCH OUTLINE**

I have started my PhD fellowship in August 2010.My Ph.D. research topic was **'S*ynthesis, characterization and optimization of magnetic nanostructures by sol-gel technique and application in water purification'***, which involves:

(i) Synthesis and characterization of maghemite by facile sol-gel technique;
(ii) Synthesis and characterization of vanadium doped maghemite nanocrystalline structures and;
(iii) Maghemite doped multi walled carbon nano tubes (maghemite - MWCNT nanocomposites);
(iv) Application of maghemite - MWCNT nanocomposites Lead removal in aqueous solutions.

Doping was investigated by Fourier transformed spectroscopy FTIR & XRD, Crystal structure and sizes were investigated by X-ray Diffraction (XRD). Transmission Electron Microscope (TEM) was used to study morphology. Magnetic properties of the particles were studied by VSM magnetometer. Thermal studies were done by (TGA). X-ray photoelectron spectroscopy (XPS) studies revealed; the vanadium present in $V_xFe_{2-x}O_3$ is trivalent in nature (applied for Malaysian Patent). In my application part, efficient removal of lead by magnetic separation technique has been studied by (maghemite – MWCNT) nanocomposites (applied for Malaysian Patent). In situ Polymerization of petroleum based PPG and PPG mixed Castor oil (green source) for Polyurethanes synthesis, with modified clay and multiwalled Carbon nanotubes as Nano fillers.

## TRAINING AND PRESENTATIONS

| Date | Program | Status |
|---|---|---|
| August 2010-2016 | UMP Postgraduate Research Colloquium, Pahang, Malaysia. | Participant |
| 10 Oct. 2010 | Flood Catastrophe in Pakistan, Open Air presentation. UMP Cafeteria Gambang. | Presenter |
| 01 Nov. 2010 | Seminar of writing a Research paper by Professor Dr. Peter Convey of British Antarctic survey, UK. UMP | Participant |
| 27 Nov. 2010 | UMP Postgraduate Research Grant presentation for Ph.D. studentship Program. | Presenter |
| 08 Feb. 2011 | *"Around the World in One Day"*. Humanitarian services to the children of the city of Phnom Penh, Cambodia. International Office. UMP Gambang. | Presenter |
| 23 Mar. 2011 | Methodology Courses (Technical wrings), UMP Gambang. | Participant |
| 14 Apr. 2011 | Workshop on Matlab. UMP Gambang. | Participant |
| 07 Apr. 2011 | Postgraduate Poster Competition. 2011. UMP Gambang. | Participant |

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| 11 May.2011 | Postgraduate Research Colloquium, 'Synthesis and fabrication of size controlled Vanadium iron oxide magnetic nanoparticles by Sol-gel cathodic technique'. Faculty of Chemical Engineering. University of Malaysia PAHANG | Presenter |
| 19 July. 2011 | Workshop on Characterization of Nanomaterials. Advanced Materials Research Centre (AMREC), Kulim. Kedah Malaysia | Participant |
| 09 Nov. 2011 | Seminar, 'Ideas of good publication', by Associate Professor Dr. Lee Keat Teong. USM Malaysia. UMP Gambang | Participant |
| 02 Feb. 2012 | Official training on BET Surface area Instrument in Faculty of Chemical Engineering UMP, Gambang Campus | Participant |
| 19 Apr. 2013 | Postgraduate Research Colloquium, 'Facile fabrication of Maghemite hybrid multiwalled carbon nanotubes (MWCNT) nanocomposites for efficient removal of Lead contaminants in Water. Faculty of Chemical Engineering. University of Malaysia PAHANG. | Presenter |
| 23 March 2016 | ACCESS DUNIA: AMC, ACS, ASCE, ASME, EBRARY and Springer link. Training in UMP, Pahang, Malaysia. | Participant |
| 30 March 2016 | Online Database Class: TAYLOR& FRANCIS. Training in UMP Pahang, Malaysia. | Participant |
| 14 April 2016 | Professor Dr. Parkash Thamburaja (How to write research articles for publication in Q1 journal ), UKM, Malaysia<br>Faculty of Mechanical Engineering, UMP. | Participant |
| 28 July 2016 | Workshop on the awareness of Plagiarism to the postgraduate students | Participant |
| 20 October 2016 | INTERNATIONAL NIGHT 2016 (UMP Gambang Campus), Pahang, Malaysia. | Participant |
| 25-27 October 2016 | Emputan menghadiri talk bertajuk A Multiscale Taylor Model-Based Constitutive Theory Describing Grain Growth in Polycrystalline Cubic Metals oleh Prof. Dr. Prakash Thamburaja | Participant |
| 3rd July 2017 | Started teaching NED UET, Karachi. Pakistan.<br>Final Year Industrial Chemistry courses including Nanotechnology and Industrial Management. | Supervisor |
| 27 July 2017 | FTIR training and applications, NED UET, Karachi Pakistan | Participant |
| 06 September 2017 | Seminar on the "Application of radiation and radiation protection." NED UET, Karachi Pakistan | Participant |
| 14 September 2017 | Class activity and presentation, "Water filtration applications by green synthesis of Carbon nanoparticles with emulsified garden soil." | Supervised |
| 21 September 2017 | Seminar and Training, "Comprehensive Reduction & Elimination of Persistent Organic Pollutants in Pakistan." Organized by Environment and Climate Change Unit UNDP and Ministry of Climate change, Government of Pakistan | Participant |
| November 2017 | Teaching NED UET, Karachi. Pakistan. Final Year Industrial Chemistry courses including Environmental Chemistry | Supervisor |

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| 21 December 2017 | NMR training and applications, NED UET, Karachi Pakistan | Participant |
| 15th February 2018 | Waste water treatment plant visit, NED UET, Karachi Pakistan | Supervised |
| 22nd February 2018 | Seminar and Training, "Basic Cosmetic Dossier". Merck Chemicals | Participant |
| 20th March 2018 | Technical visit for Desulfurization study by nanocatalyst in Pakistan Refinery Limited, Karachi | Supervised |
| 23th April 2018 | Student visit, Pakistan Refinery Limited | Supervised |
| 17th July 2018 | Masters students research (ISP) Presentations | Examiner |
| 12th September 2018 | Final Year Projects Presentations of Industrial Chemistry | Examiner |
| 26th November 2018 | Seminar and talk, "kuch khuwab he jinko (some dreams to come true)." NEDUET, Karachi | Participant |
| 3rd January 2019 | Meeting with representatives of Pakistan Plastic Manufacturing Association on the topic of 'Oxo-degradable additives' in the plastic Manufacturing & recycling | Supervised |
| 17th January 2019 | Guest lecture on 'Nanotechnology' in the Department of Chemical Engineering, NEDUET, Karachi | Presenter |
| 27th February 2019 | Mid-year evaluation of Final Year Projects Textile Engineering, NEDUET | Supervisor |
| 28th February 2019 | Mid-year evaluation of Final Year Projects Industrial Chemistry, NEDUET | Examiner |
| 9th April 2019 | Seminar and talk, ''Lab and Radioactive chemical hazards and safety." NEDUET, Karachi | Organizers |
| 11th April 2019 | Masters research Presentation, title "Desulfurization study of Diesel fuel by Zinc ferrite nanocatalyst." | Supervisor |
| 31st July 2019 | Meeting to arrange a Department Conference IICC 2020, NEDUET | Member |
| 2ndAugust 2019 | Meeting with Syed Zahoor Hassan for a SAARC project for "Future Electric cars in Subcontinent", under the supervision of Honorable Vice Chancellor, NEDUET | Participant |
| 9th August 2019 | Final year Projects (FYP) presentations | Supervisor and examiner |
| 7th November 2019 | Meeting with Mr. Rizvi, for Lithium Battery cell project. NEDUET | Presenter |
| 8th November 2019 | Society of Industrial Chemists, NEDUET elections | Focal Person of the society |

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| 12th November 2019 | Session, 'Awareness of Intellectual Property and Commercialization Policy'. NEDUET | Participant |
| 12th December 2019 | Advanced Materials &Process Engineering (APME)-2019. 11-12th December 2019 | Participant |

## CURRENT RESEARCH WORK

Currently, I am working on three different fabrication methodologies, which will be comparatively studied and optimized accordingly for number of applications. These include:

1. Polymeric nanocomposites.
2. Sol-Gel Microwave assisted technique.
3. Microwave irradiation technique.
4. Biocompatible polymer composites.
5. Green synthesis of magnetic CNTS/graphene.
6. Desulfurization study in Petroleum Industry by Nanocatalyst.
7. Nanocoatings.
8. Future Solid-state Lithium battery cells.

## CONFERENCE PROCEEDINGS, EXHIBITIONS, & HONORS

1. Authorized agent for **TechnoWeld Corporation**, for Naval Dockyard Pakistan. (Surface treatment technical applications) from July 2000 till now.

2. Post graduate Poster competition, (April 2011), University of Malaysia Pahang, Malaysia.

3. **S.F. Hasany**, A. Rehman, R. Jose, I. Ahmed. Iron Oxide Magnetic Nanoparticles: A Short Review. International Conference on Nanotechnology (ICONT 2011). Sabah, **Malaysia**.

4. **S.F. Hasany**, I. Ahmed, A. Rehman, Rajan J. Comparative study of the Preparation Techniques of Iron Oxide Magnetic Nanoparticles – A Review. International Conference of Chemical Engineering and Biotechnology (ICCEIB-SOMCHE 2011), **Malaysia**.

5. **S.F. Hasany**, N.H. Abdurahman, A.R. Sunarti, Rajan J, M.R.Kazimi. Synthesis of Hematite nanoparti cles by modified sol- gel method and study of its morphology. 3rd National Conference on Postgraduate Research, Universiti Malaysia Pahang, Kuantan, 8-9 Sep 2012.

6. **S.F. Hasany**, N.H. Abdurahman, A.R. Sunarti, Rajan J, M.R.Kazimi. Green synthesis of nanoparticles: A review. Poster presentation of The International Conference on Biomass for Biofuels and Value-Added Products (ICBBVAP), Double Tree by Hilton Hotel, Kuala Lumpur, 23-24 Oct 2012, **Malaysia**

7. Bronze Medal in **CITREX Exhibition 2013**, University of Malaysia Pahang, **Malaysia.**

8. Paper accepted in conference **ICMEE, 2013 Yokohama, Japan**.

9. Paper "Facile fabrication of γ-$Fe_2O_3$ embedded nanocomposites of MWCNT", **Nano Today 2013 Conference,** (December 2013, **Singapore**).

10. Paper "Comparative study of physico-chemical properties of pure Polyurethane and Castor Oil based Polyurethane", accepted in The International Advances in Applied Physics and Materials science Congress and Exhibition (**APMAS, April 2014, Turkey**).

11. A.A. Mohammed, D. Bachtiar, M.R.M. Rejab, **S.F. Hasany**. Effect of Potassium Permanganate on Mechanical Properties of Sugar Palm Fibre Reinforced Thermoplastic Polyurethane. **(FluidsChE 2017, Malaysia)**.

12. Invited speaker for **EMN 2018** (Energy Materials and Nanotechnology) on title, "**Metal oxides**".

13. Member of Scientific Committee for the 4$^{th}$ International Conference on Bioscience and Biotechnology, to be held in Kuala Lumpur, February 2019.

14. Paper, "Oxidative desulfurization of Petrochemical waste water by Ozonation method", (**PTP April 2019, Iraq**).

15. M. Amir Qureshi, **S.F. Hasany**. Paper, "Investigation on the Mechanical Properties Of different woven Fabrics by Using Engineered Nano Clay". International Conference on Materials Engineering and Nanotechnology. **ICMEN 2019 2-5 th December 2019 Kuala Lumpur, Malaysia**.

16. **S.F. Hasany**. Paper, "Oxidative desulfurization of Petrochemical waste water by Ozonation method. 3$^{rd}$ International Conference. **Advanced Materials &Process Engineering (APME)-2019. 11-12$^{th}$ December 2019**. NED University of Engineering and Technology, Karachi. Pakistan.

## JOURNAL PAPERS

1. **S. F. Hasany**, I. Ahmed, Rajan J, A. Rehman. Systematic Review of the Preparation Techniques of Iron Oxide Magnetic Nanoparticles. *Nanoscience and Nanotechnology*. 2011; 1(1): 1-11. DOI: 10.5923/j.nn.20120206.01

2. S. F. Hasany, A. Rehman, R. Jose, and I. Ahmed. Iron oxide magnetic nanoparticles: A short review. *AIP Conf. Proc.* 2012. 1502: 298-321. 2012. Doi: http://dx.doi.org/10.1063/1.4769153.

3. Arkan Jasim Hadi, Ghassan J. Hadi, Ghazi F. Najmuldeen, Iqbal Ahmed and **S. F. Hasany**. Gas liquid equilibrium prediction of system ($CO_2$- aqueous ethanol), at moderate pressure and different temperatures using PR-EOS. *Chemical Industry and Chemical Engineering Quarterly*. 2012: 67-67. Doi: 10.2298/CICEQ120324067H.

4. **S. F. Hasany**, N. H. Abdurahman, A.R. Sunarti, R. Jose. Magnetic Iron oxide nanoparticles: Chemical Synthesis and Applications: Review. *Journal of Current nanoscience*. **2013**. 9: 561-575. Bentham publications, USA. Doi: 10.2174/15734137113099990085.

5. **S.F. Hasany**, N.H. Abdurahman, A.R. Sunarti, Anuj Kumar. Noncovalent assembly of maghemite- multiwalled carbon nanotubes for efficient lead removal from aqueous solution, *Australian journal of Chemistry*. **2013**, 66, 1440–1446. Doi: http://dx.doi.org/10.1071/CH13281.

6. M. A. Alaa, Kamal Yusoh, **S.F. Hasany**. High Performance Polyurethane - organoclay nanocomposites based on Castor oil polyols: synthesis and characterization. *Wulfenia Journal. Kärntner Botanikzentrum.* March **2014.**

**7.** M. A. Alaa, Kamal Yusoh, **S.F. Hasany**. Synthesis and physico-chemical behavior of Polyurethane - Multiwalled Carbon Nanotubes nanocomposites based on renewable Castor Oil Polyols. 2014 (*Journal of Nanomaterials -Hindawi Publications*).

8. M. A. Alaa, Kamal Yusoh, **S.F. Hasany**. Comparative study of physico-chemical properties of pure Polyurethane and Polyurethane based on Castor Oil. *Advanced Materials Research Vol. 983 (2014) pp 39-43*. **2014**. Doi:10.4028/www.scientific.net/AMR.983.39.

9. M. A. Alaa, Kamal Yusoh, **S. F. Hasany**. Synthesis and characterization of polyurethane–organoclay nanocomposites based on renewable castor oil polyols. Polym. Bull. **2015**. DOI 10.1007/s00289-014-1255-6.

10. **S.F. Hasany**, N. H. Abdurahman,. Wet chemical synthesis of vanadium doped maghemite magnetic nanoparticles. *Journal of Current nanoscience*. Bentham publications, USA, **2016** (DOI: 10.2174/1573413712666160308203115).

11. M. A. Alaa, Kamal Yusoh, **S. F. Hasany**. Pure Polyurethane and Castor oil-based Polyurethane: Synthesis and Characterization. Journal of Mechanical Engineering and Sciences (JMES) ISSN (Print): 2289-4659; e-ISSN: 2231-8380; Volume 8, pp. 1507-1515, June **2015** © Universiti Malaysia Pahang, Malaysia. DOI: http://dx.doi.org/10.15282/jmes.8.2015.25.0147

12. Arkan Jasim Hadi, kamal Bin Youssh, **S. F. Hasany**, Ghazi Faisal Najmuldeen, Ghasan Jasim Hadi. Prediction of Experimental Measurement Data for High Density Polyethylene and Polypropylene Solubility in Organic Solvents, **2016** (Chemical Product and Process Modeling (CPPM).

13. Mohammed A. A, D. Bachtiar, J.P. Siregar, M.R.M. Rejab, and **S. F. Hasany**. Physicochemical study of Eco-friendly Sugar Palm fiber Thermoplastic Polyurethane Composites. Bioresources 11(4), **2016**, 9438-9454.

14. A.J. Hadi, K. Bin Yusoh, G.J. Hadi, **S.F. Hasany**, G.F. Najmuldeen. Waste to Wealth-Unmodified and Organo-Modified Clay Effects on Mechanical and Thermal Properties of Waste Polypropylene. International Journal of Chemical Engineering and Analytical Science. Vol. 1, No. 2, **2016**, pp. 101-106.

15. A.A. Mohammed, D. Bachtiar, M.R.M. Rejab, and **S.F. Hasany**. Effect of Potassium Permanganate on Mechanical Properties of Sugar Palm Fibre Reinforced Thermoplastic Polyurethane. Indian Journal of Science and Technology, **2017**.

16. H.K. AbdulKadir, Ghassan. J Hadi, Kamal Bin Yusoh, and **S.F. Hasany**. Mechanical and thermal properties of the waste, low, and high-density Polyethylene Nanoclay composites. Oriental Journal of Chemistry, volume 34, **2018**. Oriental Scientific Publications.

17. A. A. Mohammed, D. Bachtiar, M. R. M. Rejab, X. X. Jiang, Falak O. Abas, Raghad U. Abass, **S. F. Hasany**, and Januar P. Siregar. Effects of $KMnO_4$ treatment on the flexural, impact, and thermal properties of sugar palm fiber-reinforced thermoplastic polyurethane composites. The Journal of The Minerals, Metals & Materials Society (TMS), Springer **2018**. Doi:10.1007/s11837-018-2869-1.

18. A.J. Hadi, K. Bin Yusoh, G.J. Hadi, G.F. Najmuldeen, **S.F. Hasany**. Modified Correlation for Low Density Polyethylene (LDPE) solubility in Several Organic Solvents (Theoretical Foundations of Chemical Engineering, **2019**, Vol. 53, No. 1, pp. 115–121. Springer).

19. Mohammed A. A, D. Bachtiar, M.R.M. Rejab, **S. F. Hasany**, and Januar. P. Siregar. Influence of Different Sugar Palm Fibre Content on the Tensile, Flexural, Impact and Physicochemical Properties of Eco-Friendly the Thermoplastic Polyurethane. (Theoretical Foundations of Chemical Engineering, **2019**, Vol. 53, No. 3, pp. 454–462.Springer).

20. Falak O. Abas, **S.F. Hasany**. Re-Use Date palm wastes to Improve Aging of Composite Concrete System. Cement and Concrete Research, Elsevier (Paper submitted).

21. **S.F. Hasany**. "ZnO Nanostructures: Comparative synthetic and characterization studies". Oriental Journal of Chemistry, **2019**. Oriental Scientific Publications. (Paper submitted).

22. **S. F. Hasany**, S.M. Abed, Mohammed Ausama Abbas. $CO_2$ dry reforming of $CH_4$ to syngas over Ni-Ce/SBA-15 Catalyst- by different catalyst preparation techniques (Under Review).

## GRANTS, PATENTS & COLLABORATIONS:

1. Research Grant for **PhD Scholarship from MOHE, Malaysia**, **2010** (RM 16500).

2. Research Grant for **Post-Doctoral research work from MOHE, Malaysia**, **2014** (RM 120,000).

3. Patent title, "**A method for producing Magnetic Nanoparticles**", in the Patent registration office, Kuala Lumpur, Malaysia. **August 2013**.

4. Patent Filed on title, "**Temperature responsive Polymer Magnetic Nanohybrids for potential Targeted Drug carrier applications**", in the Patent Registration office (IPO), Karachi, Pakistan **6th July 2018**.

5. Research Collaboration with **Pakistan Refinery Limited Karachi**, for Desulfurization study of Diesel fuel by metallic nanomaterials. **2018.**

6. Report 'Evaluating the Environmental Impacts of Oxo-degradable Plastics', for **Pakistan Plastic Manufacturing Association**. **2019**. Accepted by **Senate Standing Committee on Climate Change (Senate of Pakistan).**

7. Research grant applied for **Future Lithium Battery cells. NEDUET, Karachi**. (Rs. 6 Million).

## EDTORIAL BOARD & MEMBERSHIP

1. **European Union Expert** (ID EX2019D363202).

2. **Editorial Member** of Condensed Matter Physics Report, Whioce Publishing. Singapore.

3. **Honorary Second Editor** of Current Nanoscience, Bentham Publications. USA.

## REVIEWER

1. Zeitschrift für Anorganische und Allgemeine Chemie. Wiley VCH.
2. Materials Chemistry and Physics. Elsevier.

3. Australian Journal of Chemistry, CSIRO.

4. IEEE Transactions on Magnetics.

5. New Journal of Chemistry. Royal Society of Chemistry (RSC), UK.

6. Nanoscience and Nanotechnology Letters.

7. Micro and Nano Letters.

8. AATCC Journal of Research-Textile Science e-Journal.

## FINAL YEAR UNDERGRADUATE (INDUSTRIAL CHEMISTRY) PROJECTS

1. Preparation of magnetic carbon nanohybrids (green synthesis) for potential Magnetic Separation applications.

2. Synthesis of Zinc oxide and Iron doped Zinc oxide nano particles, for potential desulfurization studies in real fuel (diesel).

3. Synthesis of size-controlled Copper Oxide nanoparticles for potential application in smart textiles.

4. Free radical polymerization of biocompatible N-Vinyl caprolactam monomers.

5. Synthesis of Tin oxide nanoparticles for semiconductor studies and engineered nano-coatings.

6. Synthesis of Maghemite doped Tin oxide nanoparticles for future anode application in Lithium batteries.

7. Advance Polyester Manufacturing Technique with Nanofiller technology.

8. Regeneration of used Car Engine oil by solvent separation technique.

9. To study the efficiency of separating oil from water using various amounts of ferrofluid.

10. Chemical and Thermal behaviors of the Waste High Density Polyethylene-nanoclay Composites.

## MASTERS PROJECTS

1. Preparation and application of size-controlled Cobalt ferrite nanoparticles.

2. Desulfurization study of Diesel fuel by Zinc ferrite nanocatalyst. (completed).

3. Oxidative Desulfurization of refinery waste water by Ozonation Technique.

4. Magnetic-Carbon nanotube synthesis for potential Bio-nanosensors application.

5. Synthesis of Nano-hybrids of Carbon nanotubes for anode application in new generation Lithium cells.

## Ph.D. SUPERVISOR FOR A PROJECT

1. Co-supervisor of Mr. Sajid Hussain, Electronics Department NEDUET.
Title: "Development of Multi-channel Nano sensor based portable system for diagnosis and detection of analytes in Human blood."

## COURSES TAUGHT IN NEDUET

1. Nanotechnology for Undergraduates.
2. Nanotechnology for Post graduates.
2. Environmental Chemistry.
3. Applied Chemistry for Materials Engineering.
4. Applied Chemistry for Metallurgical Engineering.
5. Polymer Sciences.

## COURSES DESIGNED FOR MASTERS EVENING PROGRAM NED UET

1. Advanced NanoChemistry.

2. Water Chemistry.

3. Supply chain & Process validation.

## OTHER ACTIVITIES

I have been involved in volunteer work for Ngo 'SCD Switzerland', serving needy children in Cambodia and Malaysia. Play Squash and involve myself in to other physical activities to stay healthy.

## REFREES

1. PROF. DR. ABDUREHMAN HAMID NOUR
Professor
Faculty of Chemical Eng. and Natural Resources
University of Malaysia Pahang, Malaysia.
Email address: nour2000_99@yahoo.com

2. PROF. DR. RAYMOND WHITBY
Professor

Head of Chemical Engineering, School of Engineering,
Nazarbayev University, Republic of Kazakhstan.
Email address: raymond.whitby@nu.edu.kz

3. DR. ARKAN JASIM HADI
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Department of Chemical Engineering, College of Engineering,
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4. DR. SUNARTI ABD RAHMAN
Senior Lecturer
Faculty of Chemical Eng. and Natural Resources,
University of Malaysia Pahang, Malaysia.
Email address: sunartirahman@google.com

5. DR. SYEDA NAJIHA MASOOD
Principal Engineer
Karachi Nuclear Power plant, Pakistan.
Email address: najihahassany@gmail.com