

Dr. HAFIZ ABDUL MANNAN

Assistant Professor
Institute of Polymer and Textile Engineering
University of the Punjab, 54590, Lahore, Pakistan
Office: +92 42 99238189
Mobile: +92 332 8210 964
Email: hmannaan.ipte@pu.edu.pk; mannaan1403@gmail.com

ACADEMIC QUALIFICATION

- | | |
|--|------------------|
| Ph.D. in Chemical Engineering
Universiti Teknologi PETRONAS, Malaysia
<i>“Development of Ionic Liquid Nanocomposite Membranes (ILNCOMs) for CO₂/CH₄ Separation”</i> | 2014-2018 |
| M.Sc. in Chemical Engineering by Research
Universiti Teknologi PETRONAS, Malaysia
<i>“Development of Polymer Blend Membrane for CO₂ Separation”</i> | 2012-2014 |
| B.Sc. in Chemical Engineering
University of the Punjab, Pakistan
<i>“Study on Wastewater Treatment from Pulp and Paper Industry”</i> | 2002-2006 |

TEACHING EXPERIENCE

- | | |
|---|-----------------------------------|
| University of the Punjab, Pakistan | July 2020 to Present |
| <ul style="list-style-type: none">○ Assistant Professor at Institute of Polymer and Textile Engineering (IPTE) from September 2020 to date○ Assistant Professor (IPFP) at Institute of Energy and Environmental Engineering (IEEE) from July to September 2020 | |
| Universiti Teknologi PETRONAS, Malaysia | May 2012 to September 2018 |
| <ul style="list-style-type: none">○ Graduate Assistant (Teaching) at Chemical Engineering Department | |

COURSES TAUGHT / HANDLED

- **M.Phil. Polymer Technology at IPTE, PU**
 - Research Methodology (Spring 2022)
 - Advanced Composite Materials (Fall 2020, Fall 2021, Spring 2022)
 - Membrane Science and Application (Spring 2021)
- **B.Sc. Chemical Engineering at Chemical Engineering Department, UTP**
 - Instrumentation and Process Control (Sep 2014 and Jan 2015)
 - Air Pollution Engineering (Jan 2016 and May 2016)
 - Process Safety and Loss Prevention (Jan 2013 to May 2014)
 - Unit Operations (May 2012 and Sep 2012)
 - Chemical Engineering Lab (Jan 2018, Sep 2017, May 2017, Sep 2016, May 2016, Sep 2015, and May 2015)

RESEARCH EXPERIENCE

- | | |
|---|------------------|
| Universiti Teknologi PETRONAS, Malaysia | 2018-2020 |
| ○ Post-Doctoral Researcher at Environmental Engineering Laboratory, Institute of Self-Sustainable Building (ISB) | |
| Universiti Teknologi PETRONAS, Malaysia | 2012-2018 |
| ○ Graduate Assistant (Research) at Chemical Engineering Department | |
| University of the Punjab, Pakistan | 2010-2012 |
| ○ Research Scholar at Institute of Chemical Engineering and Technology | |

RESEARCH OUTPUT AND RESEARCH INTERESTS

Research Output

Cumulative Impact Factor	> 68
Patents	1
Peer-reviewed Articles	25
Book Chapters	5
Articles in Referred Conference Proceedings	13
International Conference Presentations	8
Manuscripts Under Review	4
H-index*	11
Number of Citations*	508

*Source: Google Scholar

<https://scholar.google.com/citations?user=CAkQdEwAAAAJ&hl=en>

Research Interests

- | | |
|--------------------------------|---------------------------|
| • Separation Processes | • Gas Separation Membrane |
| • Polymer Nanocomposite | • Ionic Liquids |
| • Advanced Functional Polymers | • CO ₂ Capture |
| • Produced Water Treatment | • Biogas Upgradation |

SUPERVISION

Ph.D.

- Humaira Idrees (September 2020 to date)
- Munir Ahmad Shahid (September 2020 to date)

M.Sc./M.Phil.

- Umer Raza (November 2021 to date)
- Nusrat (November 2021 to date)

RESEARCH PROJECTS

Research Project 1

Title : **Development of Ionic Liquid Embedded Polymeric Membranes for Biogas Upgradation**

Role : Principal Investigator (PI)

Source : Higher Education Commission, Pakistan under Start-up Research Grant Program (SRGP)

Amount : PKR 834,000

Duration : July 2021-June 2022

Status : Ongoing

Research Project 2

Title : **Development of Mixed Matrix Membranes from Synthetic Polymers and Nonporous Metal Oxide-based Fillers for CO₂ Capture**

Role : Principal Investigator (PI)

Source : University of the Punjab under Internal Research Funding

Amount : PKR 0.2 million

Duration : July 2021 to June 2022

Status : Ongoing

RESPONSIBILITIES / ACTIVITIES AT UNIVERSITY OF THE PUNJAB

Role	Committee / Body	Duration
Course Coordinator	Ph.D. Polymer Technology at Institute of Polymer and Textile Engineering (IPTE)	Since June 2021
Member	Departmental Doctoral Program Committee (DDPC) of IPTE	Since March 2021
Focal Person	Career Counseling and Placement Center (CCPC) of IPTE	Since March 2021
External Examiner / Paper Setter	Institute of Chemical Engineering & Technology, University of the Punjab	February 2021
External Examiner / Thesis Evaluator	Institute of Energy and Environmental Engineering, University of the Punjab	July 2021

SPEAKER / PRESENTER

1. "Embedding Ionic Liquids in Gas Separation Membranes" presented in 1st International Conference on Ionic Liquids for Future Sustainability (ILFS) on March 10, 2022, held at University of the Punjab, Lahore, Pakistan [**Invited Speaker**]
2. "Fabrication and characterization of biopolymer-based hydrogels for biomedical applications" presented in 8th Global Conference on Polymer and Composite Materials (PCM 2021) on August 16-19, 2021, held at Macau, China / ONLINE via MS Teams [**Invited Presenter**]
3. "Amine Modified ZIF-8 for 1, 3-Butadiene / Nitrogen Separation by Adsorption Process", presented in 3rd International Conference on Environment and Sustainable Development (ICESD) organized by SDSC, GC University Lahore, from September 14-15, 2021.
4. "Effect of Unmodified and Modified Silica Particles on Morphology and Performance of Mixed Matrix Membranes", presented in 1st International Conference on Science, Engineering and Technology (ICSET-2021) organized by Mir Chakar Khan Rind University of Technology DG Khan, Pakistan on March 18, March 2021.
5. "Effect of [EMIM][Tf₂N] Ionic Liquid on Ionic Liquid-Polymeric Membrane (ILPM) for CO₂/CH₄ Separation" presented in 4th International Conference on Process Engineering and Advanced Materials (ICPEAM-2016) on 15-17 August 2016 at KLCC, Kuala Lumpur, Malaysia

6. "Polymer blend membranes for CO₂ Separation from Natural Gas" presented in 5th International Conference on Chemical and Bioprocess Engineering (ICCBPE-2015) on 9-12 December 2015 at Kota Kinabalu, Malaysia
7. "Polyethersulfone membranes for CO₂/CH₄ separation: Effect of polymer blending" presented in 3rd International Conference on Process Engineering and Advanced Materials (ICPEAM-2014) on 3-5 June 2014 at KLCC, Kuala Lumpur, Malaysia
8. "Preparation and characterization of newly developed polysulfone/polyethersulfone blend membrane for CO₂ separation" presented in 3rd International Conference and Exhibition on Sustainable Energy and Advanced Materials (ICE-SEAM-2013) on 30-31 October 2013 at Melaka, Malaysia

SHORT COURSES / SEMINARS / TRAININGS ATTENDED

1. "IPFP Associate Fellowship Support Program" organized by **Advance HE (UK)** for the fellowship of Advance Higher Education (UK) on July 16, 2021
2. "International Workshop on Biomaterials and Tissue Engineering" organized by **Department of Materials Science & Engineering**, Institute of Space Technology on May 26-27, 2021
3. "Fundamentals of Project Management" online course offered by **National Academy of Higher Education** in collaboration with **Oxon Global (UK)** from 27 March 2021 to 03 April 2021
4. "Reflective Practice in Teaching and Learning: Capacity Building for IPFP Fellows" online seminar organized by **National Academy of Higher Education** on February 11, 2021
5. "Faculty Development Program" Four-Week Online training organized by **Quality Enhancement Cell (QEC), University of the Punjab** on February 3-26, 2021
6. "Faculty Orientation Training Program" organized by **Punjab Higher Education Commission (PHEC)** on February 22-26, 2021
7. "National Faculty Development Program (NFDP 2020)" Four-week online course organized by **National Academy of Higher Education (NAHE)** and **Higher Education Commission (HEC)**, Pakistan, April-May 2020
8. "A Publisher's Guide to Writing and Publishing Scientific Manuscript", organized by Universiti Teknologi PETRONAS, Malaysia, 2016
9. "Seminar on Introduction to Material Studio: Theory and Applications", Universiti Teknologi PETRONAS, Malaysia, 2016
10. "Mitigating Health Risks in Laboratory: How to Work Safely, Sustainability and Cost Effectively" Universiti Teknologi PETRONAS, Malaysia, 2014
11. "Research Methodology", Universiti Teknologi PETRONAS, Malaysia, 2013
12. "Aspen Plus for Process Design and Simulation", University of the Punjab, Pakistan, 2012

EDITORIAL BOARD MEMBERSHIP & INVITED REVIEWER

- **Editorial Board Member** of the **International Journal of Advances in Applied Sciences** (ISSN: 2252-8814)
- **Verified Reviewer Profile** can be viewed at the following link: <https://publons.com/researcher/1270861/hafiz-abdul-mannan/>
- Served as an **Invited Reviewer** and reviewed more than **Sixty (60) manuscripts** for Internationally reputed journals.

AWARDS / ACHIEVEMENTS

TITLE	DESCRIPTION	YEAR
Silver Medal	International Conference and Exposition on Inventions by Institutions of Higher Learning PECIPTA' 19 held at UTHM, Johor, Malaysia	September 2019
Best Presenter Award	5 th International Conference on Chemical and Bioprocess Engineering (ICCBPE) held at Kota Kinabalu, Malaysia	9-12 Dec 2015
Outstanding Researcher Award	International Innovation Festival (INNOFEST 2014) held at UTeM, Melaka, Malaysia	17-18 May 2014
Gold Medal	International Innovation Festival (INNOFEST 2014) held at UTeM, Melaka, Malaysia	17-18 May 2014
Gold Medal	31 st Science and Engineering Design Exhibition (SEDEX-31) held at UTP, Perak, Malaysia	21-22 Aug 2013
Financial Assistance	Awarded by Universiti Teknologi PETRONAS, Malaysia for Ph.D. studies	2014-2018
Financial Assistance	Awarded by Universiti Teknologi PETRONAS, Malaysia for M.Sc. studies	2012-2014
Merit Scholarship	Awarded by University of the Punjab, Pakistan during B.Sc. Chemical Engineering	2002-2006
Merit Scholarship	Awarded by Punjab Provincial Government during B.Sc. Chemical Engineering	2002-2006

PROFESSIONAL MEMBERSHIP

-
1. **Fellow**, National Academy of Higher Education (NAHE), Pakistan (Since 2020)
 2. Registered Engineer (**RE**), Pakistan Engineering Council (PEC), Pakistan, Membership No. **CHEM/5969** (Since 2006)