# Department of Chemistry & Chemical Engineering



Falak Sher (PhD)

Associate Professor and Chair

Department of Chemistry and Chemical Engineering

SBASSE, LUMS

**Advisory Board Meeting** 

January 25–28, 2021



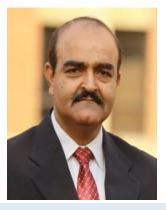
## Update on Faculty Hiring

Student Admissions and Placements

Research Activities and Output

Challenges

# **Faculty - Chemistry and Chemical Engineering**



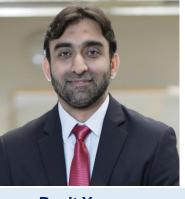


Falak Sher Associate Professor PhD: University of Cambridge, UK

Irshad Hussain Full Professor PhD: University of Liverpool, UK



Ghayoor Abbas Associate Professor PhD: Michigan State University, USA



Basit Yameen Associate Professor PhD: MPI for Polymer Research, Mainz, Germany



Rahman Saleem Associate Professor PhD: Michigan State University, USA



Habib-ur-Rehman Associate Professor PhD: Institute for New Materials, Germany



Salman N. Arshad Assistant Professor PhD: UIUC, USA



Muhammad Zaheer Assistant Professor PhD: University of Bayreuth, Germany



Muhammad Saeed Associate Professor PhD: Tubingen University, Germany



Ali Rauf Assistant Professor PhD: Sungkyunkwan University, South Korea



Qasim Imtiaz Assistant Professor PhD: ETH Zürich Postdoc: ETH and MIT



Muhammad Shoaib Assistant Professor PhD: Sungkyunkwan University, South Korea

# **Chemical Engineering Faculty Hiring - Status**

#### 1. Dr. Rofice Dickson (joined)

Process modelling and Optimization Pukyong National University, South Korea

**3.** Dr. Qandeel Almas (offered but she declined)

Biomass based chemicals - catalysis

Georgia Institute of Technology, USA

### 5. Dr. Waqas Aslam (on-hold)

Catalytic conversion of syngas into oxygenated fuels University of Queensland, Australia

### 2. Dr. Faheem Akhtar (in process)

Porous materials and polymer membranes KAUST, Saudi Arabia

4. Dr. Atif Pervez (offered but he declined)

Lithium ion batteries

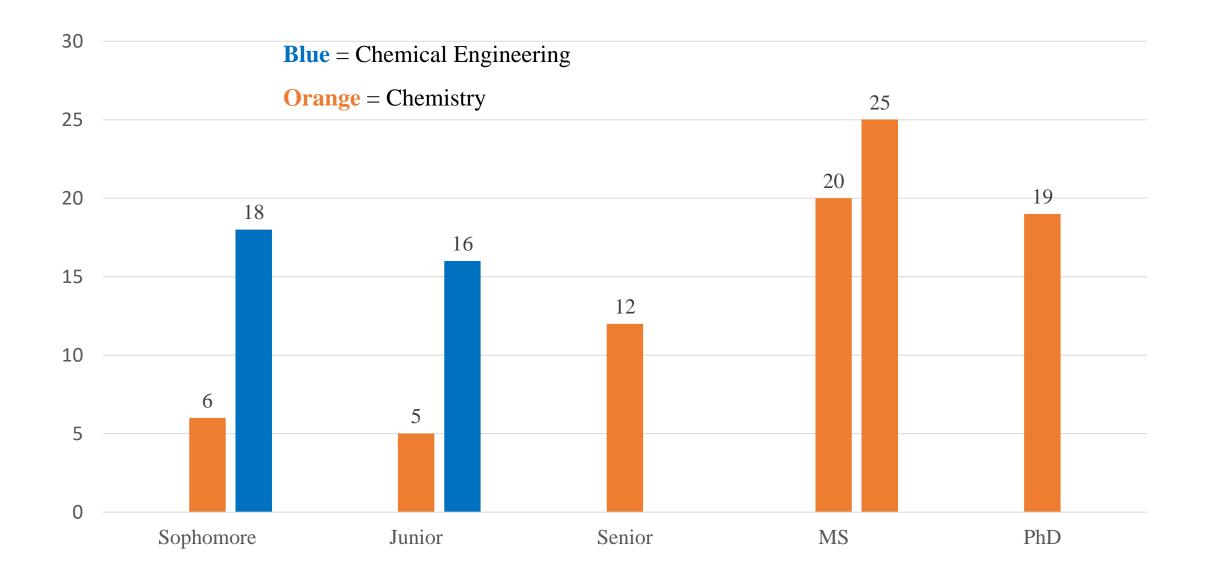
Korea Electro-Technology Research Institute (KERI) in South Korea; University of Calgary;

Alexander von Humboldt Fellowship

### 6. Dr. Izzat Cheema (on-hold)

Analysis and optimization of Haber process Technische Universität Braunschweig, Braunschweig – Germany

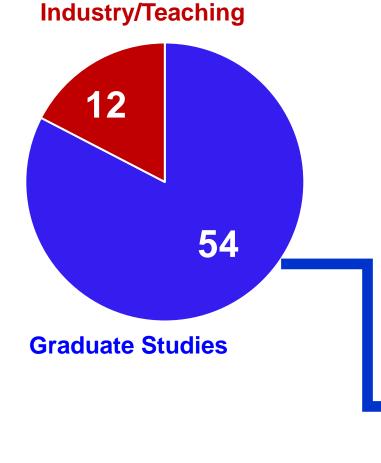
## **Current Chemistry and Chemical Engineering Students**



## **BS Chemistry Program – Placements**

### **BS** Chemistry

Total graduated students= 66



#### Industry/Teaching

Teaching (TNS Beaconhouse, LGS, Roots etc.)	= 7
Industry	= 2
Business	= 3

**Fully Funded Scholarships in US** 

Students with cGPA of 3.0 or more = 100% success rate

MIT, Princeton, Chicago, JHU, UIUC, Cornell, Minnesota, UMass, Utah, UC Davis, Texas A&M, Indiana–Bloomington, Rice etc.

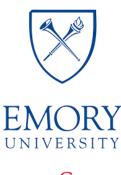
PhD Completed	= 10
PhD in process	= 33
MS	= 11
MBA	= 3

MS Students/Staff who won PhD Scholarships = 19 Current students who have received PhD offers = 11

# **Admission Offers Received by Chemistry Majors 2021**



Offer



IOWA STATE UNIVERSITY



Azka Arshad

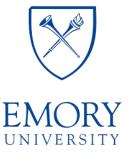






Shikufa Mousavi

Offer







**Anam Hayee** 

# **Admission Offers Received by Chemistry Majors 2021**

Offer

## IOWA STATE UNIVERSITY

Nawal Zahra Jafari



**Binish Ashfaq** 

Offer

UNIVERSITY OF MINNESOTA Driven to Discover

Offer

IOWA STATE UNIVERSITY

Qasim Qayyum Kashif



Offer



Offer



8

Farwa Awan

Nabeeha Malik

## **Placements of Chemistry Alumni**



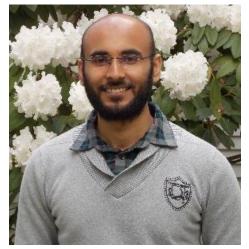
Zain Yousaf BS Chemistry 2012, LUMS



**MS Chemistry, UIUC** 



Working at Biogen-Cambridge, Massachusetts, USA Biogen



Muhammad Affawn Ashraf BS Chemistry 2012, LUMS



**PhD Chemistry, UMASS** 



Working at Intel (USA)





Sikandar Abbas Wattoo BS Chemistry 2013, LUMS





Wardah Ejaz BS Chemistry 2014, LUMS



PhD Chemistry, UMASS



Working at Intel (USA)



## **Placements of Chemistry Alumni**



Waqas Rasheed BS Chemistry 2013, LUMS



#### PhD Chemistry, Minnesota

UNIVERSITY OF MINNESOTA Driven to Discover<sup>55</sup>

Working at Tate & Lyle (USA)

TATE 🔀 LYLE



Syed Ali Moeed Tirmzi BS Chemistry 2014, LUMS





Ahmed Yousaf BS Chemistry 2014, LUMS



PhD Chemistry, ASU



Arizona State University Working at Intel (USA)





Syed Muhammad Usama BS Chemistry 2014, LUMS



PhD Chemistry, Texas A&M

TEXAS A&M UNIVERSITY.

Working as a postdoc at Frederick, Maryland, (USA)



# **Placements of Chemistry Alumni**



**Abdul Malik BS Chemistry 2012, LUMS** 



PhD Texas Tech University



TEXAS TECH UNIVERSITY.

Working at OpenEye Scientific (USA)





**Assad Ullah Khan BS Chemistry 2013, LUMS** 



PhD Virginia Tech



Working at Micron Technology (USA)





Safeer Alvi



MS University of Indiana Bloomington



Healthinee

Working at Siemens Healthineers Working at GSI Environmental Inc. (USA) (USA) SIEMENS



**Hassan Javed BS Chemistry 2015, LUMS** 



PhD Rice University









**Bilal Umer** 

Rashid Khalid BS Chemistry 2013, LUMS



Working at TNS Beaconhouse Lahore Pakistan



LUMS

**BS Chemistry 2013, LUMS** 

Working at Unilever Pakistan



PAKISTAN



Ahmad Zaman Qamar Lab Facilitator at Chemistry, LUMS



PhD Chemistry, Southern Illinois University, Carbondale



CARBONDALE

Working as Assistant Professor of Chemistry at University of Central Arkansas, (USA)





Aleeza Farrukh Lab Instructor at Chemistry, LUMS



Ph.D. in Chemistry from the Max Planck Institute for Polymer Research, Mainz



Working as Post Doc at University of California, Irvine (USA)



# **Placements of PhD Chemistry Students**





Dr. Shazia Mumtaz Assistant Professor. Chemistry (BPS-18) Govt Islamia College Railway Road Lahore.



#### Dr. Uzma Hira

Assistant Professor, Chemistry school of physical sciences, University of the Punjab, Lahore



Dr. Mira tul Zubaida Butt Lecturer, Chemistry (BPS-17) Govt. Hanifan Begum Degree College for Women, Mustafabad, Kasur



Dr. Hafiza Tayyaba Shahzadi Lecturer, Chemistry (BPS-17) Govt. Degree College for Women, Ferozwala, Shiekhupura



**Dr. Sharon Riaz** Assistant Professor, Chemistry University of Sialkot, Sialkot



Dr. Akhtar Munir

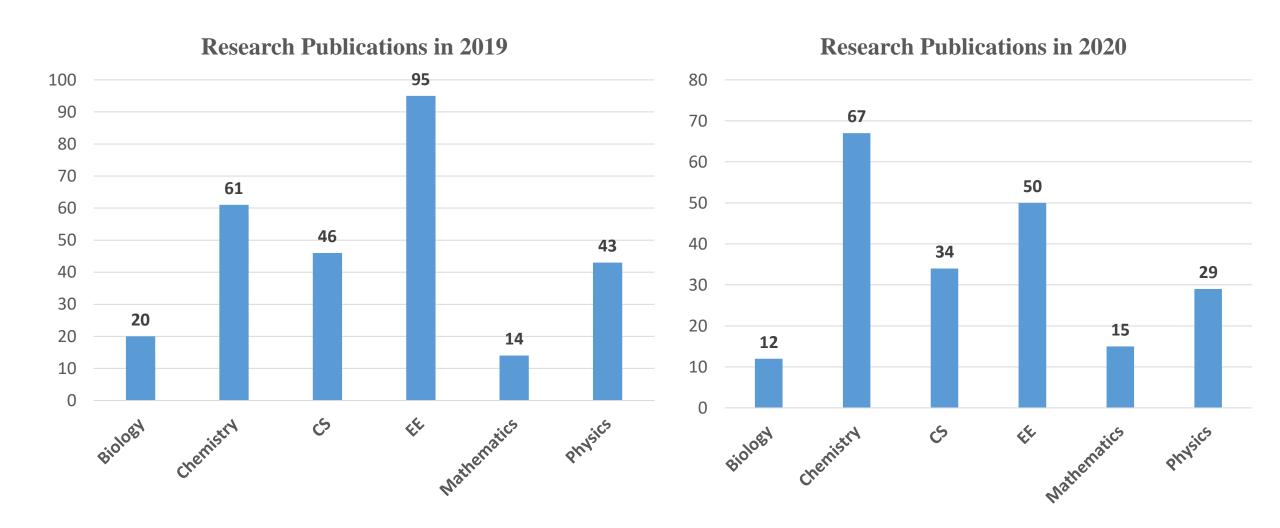
Assistant Professor, Chemistry University of Sialkot, Sialkot



**Dr. Soneela Asghar** Post Doctoral Research Assistant WCAIR, Drug Discovery Unit, University of Dundee, Scotland, UK

# **Research Publications**

Source: Publications Dashboard | Office of Research (lums.edu.pk)



# Challenges

- Faculty hiring and retention in the key areas, especially for the Chemical Engineering program
- Enrolment of students in the chemistry major
- Quality of students in the MS chemistry program
- Research grants and limited number of available avenues/resources
- Industry-Academia research collaborations
- Long-term sustainability of Graduate Programs

