

Syed Faraz Jawed (Dr.)

Assistant Professor

Department of Biomedical Engineering

*NED University of Engineering and Technology, LEJ Campus
A Block, 81- 3, Karachi Memon Society, Karachi, Karachi City, Sindh
+92-333-2164125; farazjawed@neduet.edu.pk*

PERSONAL INFORMATION

Place and date of birth: **29th August, 1988/ Karachi, Pakistan**

Nationality: **Pakistani**

Address: **C-1, Ashraf Plaza, Sector 14-B, Shadman Town, 75850, Karachi, Pakistan**

Google Scholar: <https://scholar.google.com/citations?user=2-oTS50AAAAJ&hl=en>

Research Gate: <https://www.researchgate.net/profile/Syed-Jawed-3>

ORCID iD: <https://orcid.org/0000-0003-4507-6095>

EDUCATIONAL QUALIFICATION

Ph.D. in Engineering and Related Technologies **Sep. 2017 – Dec. 2020**
Thesis title: *Design, microstructure and properties of metastable beta-type biomedical titanium alloys.*
Edith Cowan University (Australia)

M.E. in Biomedical Engineering **Jul. 2012 – Dec. 2014**
NED University of Engineering and Technology (Pakistan)

B.E. in Biomedical Engineering **Jan. 2007 – Dec. 2011**
NED University of Engineering and Technology (Pakistan)

PROFESSIONAL EXPERIENCE

Assistant Professor **Aug. 2022 – to date**
Department of Biomedical Engineering
NED University of Engineering and Technology (Pakistan)

Associate Professor **Nov. 2020 – Aug. 2022**
Department of Biomedical Engineering, ZUFESTM
Ziauddin University (Pakistan)

Teaching Assistant **Mar. 2019 – Feb. 2020**
School of Engineering
Edith Cowan University (Australia)

Senior Lecturer Department of Biomedical Engineering, ZUFEST <i>Ziauddin University (Pakistan)</i>	Apr. 2015 – Sep. 2017
Lecturer College of Biomedical Engineering <i>Ziauddin University (Pakistan)</i>	Dec. 2013 – Apr. 2015
Research Assistant College of Biomedical Engineering <i>Ziauddin University (Pakistan)</i>	Aug. 2012 – Dec. 2013
Visiting Faculty Lecturer Institute of Physical Medicine & Rehabilitation <i>Dow University of Health & Sciences (Pakistan)</i>	Feb. 2012 – Jul. 2012
Sales and service Engineer <i>Radiant Medical (Pvt) Ltd. Pakistan</i>	Jan. 2012 – Aug. 2012
Trainee Engineer <i>Universal Enterprises (Pvt) Ltd. Pakistan</i>	Jul. 2011 – Nov. 2011

GRANTS WON

1. *National Research Program for Universities (NRPU)*

Principal Investigator: Syed Faraz Jawed

Budget Approved: Rs. 12732500/- (twelve million seven hundred thirty two thousand five hundred)

Project Title: Microfluidic, paper-based analytical device: design, simulation, fabrication and point-of-care testing of infectious disease.

Duration: 36 months

Funding Agency: Higher Education Commission

PUBLICATIONS (*Impact factor: 60; h-index: 08; i10-index: 07; Citations: 312*)

Journal Publications

1. **Syed Faraz Jawed**, Chirag Rabadia, Muhammad Ahmed Khan, Saad Jawaid Khan, “The effect of alloying elements on the compressive mechanical properties of beta-type biomedical titanium alloys: A systematic review”, 2022 *ACS omega*. <https://doi.org/10.1021/acsomega.2c02096>.
2. Salman Ilyas, **Syed Faraz Jawed**, Subhan Shakeel, “Design and development of a stroke rehabilitation glove for measuring and monitoring hand motions”, *Pakistan Journal of*

3. Chirag Rabadia, **Syed Faraz Jawed**, Jincheng Wang, Milind Siddhpura, Arti Siddhpura, “A Revised Semi-Empirical Approach to Predict the Occurrence of Twinning in Titanium Alloys” *ACS Omega* 2021 6 (49), 34056-34064 <https://doi.org/10.1021/acsomega.1c05474>
4. **Syed Faraz Jawed**, Chirag dihrjalal Rabadia, Fahad Azim, Saad Jawaid Khan, “Effect of Nb on $\beta \rightarrow \alpha$ martensitic phase transformation and characterization of new biomedical Ti-xNb-3Fe-9Zr alloys”, *Scanning* 2021 (2021), 8173425. <https://doi.org/10.1155/2021/8173425>.
5. **S.F. Jawed**, Y.J. Liu, J.C. Wang, C.D. Rabadia, L.Q. Wang, Y.H. Li, X.H. Zhang, L.C. Zhang, Tailoring deformation and superelastic behaviors of beta-type Ti-Nb-Mn-Sn alloys, *Journal of Mechanical Behavior of Biomedical Materials* 110 (2020) 103867. <https://doi.org/10.1016/j.jmbbm.2020.103867>.
6. **S.F. Jawed**, C.D. Rabadia, Y.J. Liu, L.Q. Wang, P. Qin, Y.H. Li, X.H. Zhang, L.C. Zhang, Strengthening mechanism and corrosion resistance of beta-type Ti-Nb-Zr-Mn alloys, *Materials Science and Engineering: C* 110 (2020) 110728. <https://doi.org/10.1016/j.msec.2020.110728>.
7. C.D. Rabadia, Y.J. Liu, **S.F. Jawed**, L.Q. Wang, H. Sun, L.C. Zhang, Deformation and toughness behavior of β -type titanium alloys comprising C15-type Laves phase, *Materials Today Sustainability* 9 (2020) 100034. <https://doi.org/10.1016/j.mtsust.2020.100034>.
8. **S.F. Jawed**, C.D. Rabadia, Y.J. Liu, L.Q. Wang, Y.H. Li, X.H. Zhang, L.C. Zhang, Beta-type Ti-Nb-Zr-Cr alloys with large plasticity and significant strain hardening, *Materials & Design* 181 (2019) 108064. <https://doi.org/10.1016/j.matdes.2019.108064>.
9. C.D. Rabadia, Y.J. Liu, C.H. Zhao, J.C. Wang, **S.F. Jawed**, L.Q. Wang, L.Y. Chen, H. Sun, L.C. Zhang, Improved trade-off between strength and plasticity in titanium based metastable beta type Ti-Zr-Fe-Sn alloys, *Materials Science and Engineering: A* 766 (2019) 138340. <https://doi.org/10.1016/j.msea.2019.138340>.
10. C.D. Rabadia, Y.J. Liu, L.Y. Chen, **S.F. Jawed**, L.Q. Wang, H. Sun, L.C. Zhang, Deformation and strength characteristics of Laves phases in titanium alloys, *Materials & Design* 179 (2019) 107891. <https://doi.org/10.1016/j.matdes.2019.107891>.
11. **S.F. Jawed**, C.D. Rabadia, Y.J. Liu, L.Q. Wang, Y.H. Li, X.H. Zhang, L.C. Zhang, Mechanical characterization and deformation behavior of β -stabilized Ti-Nb-Sn-Cr alloys, *Journal of Alloys and Compounds* 792 (2019) 684-693. <https://doi.org/10.1016/j.jallcom.2019.04.079>.
12. C.D. Rabadia, Y.J. Liu, **S.F. Jawed**, L. Wang, Y.H. Li, X.H. Zhang, T.B. Sercombe, H. Sun, L.C. Zhang, Improved deformation behavior in Ti-Zr-Fe-Mn alloys comprising the C14 type Laves and β phases, *Materials & Design* 160 (2018) 1059-1070. <https://doi.org/10.1016/j.matdes.2018.10.049>.

Conference Publications

1. C.D. Rabadia, Y.J. Liu, **S.F. Jawed**, L.Q. Wang, L.C. Zhang, “Bulk deformation and toughness behavior of titanium alloys comprising the C15-type Laves and beta phases” *International conference on materials science and engineering, Materials Oceania 2019, 16th – 18th September 2019*, Pullman Melbourne Albert Park, Australia.
2. **Syed Faraz Jawed**, Prof. Muhammad Iqbal Bhatti, “Performance Evaluation of Silicon Based Implantable Renal Assist Device in Comparison with Graphene Based Materials” *ICEET 2014, 20th-21st March 2014*, Superior University, Lahore.
3. Maaz Siddiqui, Hafsa Farooqi, **Syed Faraz Jawed**, “Modeling & Simulation of an Artery using Clot Busting Technology” *2nd International conference on Endorsing Health Science Research, 14th – 17th March, 2014*, Karachi University, Karachi.
4. Shalani Nathaniel, Anila Shams, **Syed Faraz Jawed**, “Analysis of Large Molecule Drug Liberation in Comparison with Small Molecule across Blood Brain Barrier” *29th All Pakistan IEEEEP Student Seminar, 22nd February 2014*, Mehran University of Engineering & Technology, Jamshoro.
5. **Syed Faraz Jawed**, Muhammad Saqib Eijaz “Application of reverse engineering in three dimensional geometrical model of prosthetic knee joint by using computer aided design analysis”, *5th World Engineering Congress, 23rd-25th September 2013*, National University of Science & Technology, Islamabad.
6. M.A. Khan, **S.F. Jawed**, M.O. Khan and O. Mazhar, “An Innovative Approach towards E-health in Development of Tele Auscultation System for Heart using GSM Mobile Communication Technology”, *IEEE 19th International Conference for Design and Technology in Electronic Packaging (SIITME) October 2013*, Romania, DOI: [10.1109/SIITME.2013.6743673](https://doi.org/10.1109/SIITME.2013.6743673).

PROFESSIONAL AFFILIATIONS

1. HEC approved PhD supervisor (Ref. HEC/HRD/ASA/2021/87922).
2. Registered Engineer Pakistan Engineering Council (Registration # PEC/BioMed/634).
3. Registered Member of International Association of Advanced Materials (Membership # 888291613099).

ADMINISTRATIVE DUTIES

1. Member of Pakistan Engineering Council accreditation response committee, College of Biomedical Engineering, Ziauddin University (2015 – 2017).
2. Member of Charter Inspection and Evaluation accreditation response committee, College of Biomedical Engineering, Ziauddin University (2015 – 2017).
3. Head Invigilator, Faculty of Engineering Science Technology & Management, Ziauddin University (Sep 2021 - Nov 2021).
4. Member Board of Faculty, Faculty of Engineering Science, Technology & Management, Ziauddin University (Jan 2021 – Aug 2022).
5. Member Research Committee, Faculty of Engineering Science Technology & Management, Ziauddin University (Dec 2020 – Aug 2022).
6. Secretary Board of Studies, Department of Biomedical Engineering, Ziauddin University (Jan 2021 – Aug 2022).
7. Incharge Biomedical Engineering Program, Department of Biomedical Engineering, Ziauddin University (Dec 2020 – Aug 2022).
8. Incharge Biomedical Engineering Technology Program, Department of Biomedical Engineering, Ziauddin University (Oct 2021 – to date).
9. Incharge Evening Programmes, Faculty of Engineering Science Technology & Management (Oct 2021 – Aug 2022).

RESERARCH INTRESTS

Biomaterials & alloys, Rehabilitation Engineering, Biomedical Sensors and E-health.

REFRENCES

Will be furnished upon Request