

Dr. SHADI KHAN BALOCH

(HEC APPROVED PHD SUPERVISOR)

PERSONAL DATA

PLACE AND DATE OF BIRTH: Sukkur, Pakistan | 05 May 1986
EMAIL: shadi.baloch@faculty.muet.edu.pk

RESEARCH INTERESTS

Micro-Electro-Mechanical Systems (MEMS), Energy Technologies, Optofluidics (Refractive index based sensing) for sensing applications (Chemical and biosensors).

TEACHING INTERESTS

Control systems, Mechatronics System Design, Electronics Circuit Design, Principles of Applied Mechatronics, Micro- Electro-Mechanical Systems (MEMS), Actuating Systems.

EDUCATION

- 2013- 2018 PhD in ELECTRICAL AND ELECTRONICS ENGINEERING, **Koç University Istanbul**, Turkey
Dissertation Title: "Microcantilever Based Sensor for Characterization of Ethanol-CO₂ Fluid Mixtures at High Pressures"
- 2004 -2008 B.E ELECTRONICS ENGINEERING
Mehran University of Engineering and Technology Jamshoro , Pakistan

WORK EXPERIENCE

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| OCT 2019-TO DATE | Assistant Professor at DEPARTMENT OF MECHATRONICS ENGINEERING, MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY JAMSHORO, Pakistan |
| SEPT 2018- OCT 2019 | Assistant Professor at DEPARTMENT OF ELECTRICAL ENGINEERING, INSTITUTE OF BUSINESS MANAGEMENT KARACHI, Pakistan |
| SEPT 2013-JULY 2018 | Teaching Assistant at KOÇ UNIVERSITY ISTANBUL
Teaching assistant of undergraduate courses of Natural science and Electrical circuits. |
| OCT 2009-SEPT 2013 | Assistant Manager at PAKISTAN TELECOMMUNICATION COMPANY LIMITED, Central Exchange Hyderabad, Pakistan
Operation and maintenance of optical fiber network and DSLAM's.
Transmission equipment (SDH, DWDM, DSLAM's and ONU's) configurations and troubleshooting.
Involved in the business plan and business process development for PTCL's broadband (DSL Service) and multimedia project. |
| AUG 2009-OCT 2009 | Research Associate at UNIVERSITY OF SINDH JAMSHORO, Pakistan |

RESEARCH PROJECT

Worked on European Union's Horizon 2020 research and innovation programme under grant agreement No 685648 project. Developed a Microcantilever based sensing technique and determined the mixture composition and viscosity of ethanol-CO₂ mixtures using frequency response of Microcantilevers.

JOURNAL PUBLICATIONS

S.K. Baloch, A. Jonás, A. Kiraz, B.E. Alaca, C. Erkey, Determination of composition of ethanol-CO₂ mixtures at high pressures using frequency response of microcantilevers, *The Journal of Supercritical Fluids*, 132 (2018) 65-70. (Impact factor:3.122)

G.Eris, S.K.Baloch, A.A.Bozkurt, A.Jonás, A.Kiraz, B.E.Alaca, C.Erkey, "Characterization of fluid mixtures at high pressures using frequency response of microcantilevers", *Sensors and Actuators A: Physical*, 261 (2017) 202-209.(Impact factor:2.311)

S.K. Baloch, A. Jonás, A. Kiraz, B.E. Alaca, C. Erkey, Sensitivity of compositional measurement of high-pressure fluid mixtures using microcantilever frequency response, *Sensors and Actuators A: Physical*, 278 (2018) 111-126.(Impact factor:2.311)

CONFERENCE PRESENTATIONS

"Determination of Composition of Ethanol-CO₂ Mixtures at High Pressures Using Frequency Response of Microcantilevers", with G. Eris, A. Bozkurt, A. Jonas, A. Kiraz, E. Alaca, C. Erkey, 15th European Meeting on Supercritical Fluids, May, 2016 (Essen, Germany)

"Measurement of composition of mixtures at high pressures with high sensitivity using frequency response of microcantilevers", with A.Jonás, A.Kiraz, B.E.Alaca, C.Erkey, SPIE Photonics West, January, 2018 (San Francisco, USA)

ACADEMIC ACHIEVEMENT

SEPT. 2013 Secured HEC scholarship under the "UESTP-HRDI Scholarships / Faculty Development Program".

TECHNICAL/PROGRAMMING SKILLS

MATLAB, OpenCV, Visual C++, LabVIEW, Origin, Inkscape, COMSOL and SolidWorks.

PERSONAL SKILLS

Interpersonal, time management, analytical, organizational and leadership skills.
Go-getter attitude with an ability to easily grasp new ideas, concepts and methods.

PROFESSIONAL TRAININGS

Learning the Art of Doing Job
Business Management Skills
Talk, solve and resolve (Soft skill training)
Team Building for Performance Excellence
NGN Training
Winning Customers Through Care
SDH (ZTE and Huawei) and DSLAM (ZTE and Huawei)

ADDITIONAL INFORMATION

HEC Approved PhD Supervisor.
Membership: International Society for Optics and Photonics (SPIE) member.
Languages: English, Urdu and Sindhi.

REFERENCES

Prof. Dr Can Erkey
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Prof. Dr. Alper Kiraz
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