



Kamran Hameed

Lecturer

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Professional Summary

A self-motivated and well-organized engineering professional with over 19 years of experience in undergraduate teaching, research, product design, development, and academic quality management. Expertise in Biomedical Engineering, Electronics Engineering, and laboratory management with a strong record of research contributions and academic leadership.

Academic Experience

Lecturer, Imam Abdulrahman Bin Faisal University

July 2013 – Present (Full-time)

- Conducting lectures and experimental labs for undergraduate students.
- Developed various Biomedical Engineering labs and laboratory manuals.
- Supervising senior design projects.
- Managing laboratory functionality and safety.
- eLearning Representative.

Assistant Professor, Sir Syed University of Engineering and Technology

2010 – 2013 (Full-time)

- Conducted lectures and lab work for undergraduate students.
- Head of Final Year Project (FYP) Committee.
- Supervised senior design projects.
- Managed accreditation requirements for PEC (Pakistan Engineering Council).
- Led procurement and maintenance of lab equipment.
- Trained non-teaching staff on advanced laboratory technologies.

Lecturer, Sir Syed University of Engineering and Technology

2007– 2010 (Full-time)

- Deliver lectures and conduct experimental work for undergraduate students.
- Co-supervise senior design projects.
- Oversee the procurement of laboratory equipment.
- Manage the maintenance and upkeep of lab equipment.
- Provide educational training to non-teaching staff on newly introduced technologies and equipment.

Demonstrator, Sir Syed University of Engineering and Technology

2006– 2007 (Full-time)

- Conduct experimental work for undergraduate students.
- Oversee the maintenance and upkeep of laboratory equipment.
- Train non-teaching staff on newly introduced and adopted technologies and equipment.

Education

- M.Engg. Electronics Engineering (Micro System Design), NED University (2007 – 2009)
- B.S. Biomedical Engineering, Sir Syed University of Engineering and Technology (2002 – 2005)
- Graduated with First Class First Position (Gold Medalist)

Teaching Expertise

Medical Image Processing, Advanced Computer Programming, Magnetic Resonance Imaging, Microprocessor, Biomedical Imaging Systems, Control Systems in BME, Digital Design, Electrical Circuits, Biomedical Instrumentation, Signal and Systems, Medical Imaging Systems, Biomedical Digital Signal Processing, Embedded Systems and Microprocessors.

Research & Publications

Published research in high-impact journals such as IEEE Access, Radiation Physics and Chemistry (Elsevier) and Springer.

Topics of research include Biomedical Instrumentation, medical imaging, smart biomedical devices, biosensors, and healthcare-assistive technologies.

List of the recent publications

1. Obaidullah Ehtesham Akbar, **Kamran Hameed**, Hussain Jaffar, Mauth Yousef, Maryam AL. Hashim, Fabrication of Low-cost heterogeneous anthropomorphic thyroid neck phantom for CT, Radiation Physics and Chemistry, 2025, 112752, ISSN 0969- 806X, <https://doi.org/10.1016/j.radphyschem.2025.112752>.
2. Althobaiti M, Hariri NG, **HAMEED K**, AL-RUBAI NA, inventors; Imam Abdulrahman Bin Faisal University, assignee. Epidural needle. United States patent application US 18/454,863. 2025 Feb 27.
3. **Hameed, K.**, Ali, S., Shahrukh, I., Shahrukh, S., Hourani, R.J., Ali, U. (2025). An Approach to Design a Cost-Effective Thermocycler for Polymerase Chain Reaction. In: Bradford, P.G., Gadsden, S.A., Koul, S.K., Ghatak, K.P. (eds) Proceedings of IEMTRONICS 2024. IEMTRONICS 2024. Lecture Notes in Electrical Engineering, vol 1228. Springer, Singapore. https://doi.org/10.1007/978-981-97-4784-9_18
4. Talay, S., Mustansar, Z., Al-Mubarak, H., Aldarwish, A., Alhamoud, F., Aljabr, N., **Khawaja, K. H.**, & Tamal, M. (2024). Unveiling the future of medical imaging: Scan to VR pipeline for visualization. In K. Subburaj, S. Singh, S. Ćuković, K. Sandhu, G. Meixner & R. E. Petrusse (Eds.), Smart VR/AR/MR systems for professionals (1st ed., pp. 117-136). CRC Press. <https://doi.org/10.1201/9781003306078-9>.
5. **Kamran Hameed**, Syed Mehmood, Ijlal, Sana Shahrukh, Rana Jamal Hourani and Uzma Ali, "An Approach to Design a Cost-effective Thermocycler for Polymerase Chain Reaction", Phillip G. Bradford, S. Andrew Gadsden, Shibani K Koul, Kamakhya Prasad Ghatak (Eds.), Proceedings of IEMTRONICS 2024, International IoT, Electronics and Mechatronics Conference, Volume 1, Lecture Notes in Electrical Engineering, Springer

Singapore, Due: 02 October 2024.
<https://link.springer.com/book/9789819747795#bibliographic-information>

6. MURAD ALTHOBAIT, YARA ALAGLI, NAJWA ALZHRANI, SARA ALZHRANI, SAJID AL, NASIR G. HARIR, **KAMRAN HAMEED** AND IBRAHEEM AL-NAIB, "Development of a Smart Spinal Epidural Needle Based on Load Cell Sensors," in IEEE Access, vol. 11, pp. 125411-125420, 2023, doi: 10.1109/ACCESS.2023.3331500.
7. Althobaiti, M, Ali, S, Hariri, NG, **Hameed, K**, Alaghl, Y, Alzahrani, N, Alzahrani, S & Al-Naib, I 2023, 'Recent Advances in Smart Epidural Spinal Needles', Sensors (Basel, Switzerland), vol. 23, no. 13, pp. 6065.
8. S. Mehmood Ali, S. Ghufuran Khalid, U. Ali, and **K. Hameed**, "A Blueprint design of optical-based wristband for non-invasive and continuous health status monitoring of sickle cell disease patients", JART, vol. 21, no. 1, pp. 133-144, Feb. 2023.
9. **K. Hameed**, S. I. Shahrukh and I. S. Ateeq, "Design of Monitoring System for Respiratory Diagnosis," 2022 IEEE International IOT, Electronics and Mechatronics Conference (IEMTRONICS), 2022, pp. 1-8, doi: 10.1109/IEMTRONICS55184.2022.9795832.
10. **K. Hameed**, S. M. Ali and U. Ali, "An Approach to design Keyboard and Mouse assisting device for handicap users," 2022 IEEE International IOT, Electronics and Mechatronics Conference.
11. **K. Hameed**, "An Approach to design Human Assisting Prototype Robot for providing Fast and hygienically secure environment to Clinical professionals in order to fight against COVID19 in Hospitals," 2021 IEEE International IOT, Electronics and Mechatronics Conference (IEMTRONICS), 2021, pp. 1-7, doi: 10.1109/IEMTRONICS52119.2021.9422658.
12. **K. Hameed** & A. Alomari S. Alduwaish, O Alshakri, R Alamri, R Alfariah, S Alqahtani, "Automated Humidity Control System for Neonatal Incubator," Journal of Physics. Conference series. Series, vol. 2071, (1), pp. 12029, 2021.
13. **Hameed, K.**, Hussain, M., & Shahrukh, I. (2018). Monitor aided radio control mobile robot (MARCMR). (pp. 593-598). Springer Singapore. https://doi.org/10.1007/978-981-10-9038-7_110.
14. Ateeq, I. S., **Hameed, K.**, Khowaja, M., & Khan, S. H. (2018). Design and implementation of digital tele stethoscope. (pp. 867-873). Springer Singapore. https://doi.org/10.1007/978-981-10-9038-7_160.
15. Saadia Talay, Fatimah Alhamoud, Amjad makky, Huda Al-Mubarak, Noor Aljabr, Mahbubunnabi Tamal, **Kamran Hameed**. Integration of 3D Virtual Reality (VR) in Diagnostic and Therapeutic Imaging. International conference on Radiation Medicine (ICRM 2018), Riyadh, Saudi Arabia.

16. Tahani M. Al-Fareed | Nora M. Al-Qahtani | Bayan M. Al-Tuwaijri, **Kamran Khawaja** (2017). Measuring blood glucose level non-invasively using bio-impedance technique. 1st IEEE GCC SYP CONGRESS 2017, Kingdom of Bahrain, Manama, 7-8 May 2017.
17. Abid, M., Hepbaşlı, A., Saeed, K., Ali, H., Yousef, B.A., Khan, S.Z., & **Hameed, K.** (2016). A review of exergetic studies on solar collectors and solar cooling technologies for building applications. ISSN 2229-5518.
18. **Hameed, K.**, Khan, M. M., Ateeq, I. S., Omair, S. M., Ahmer, M., & Wajid, A. (2013). Solar power water distillation unit. Journal of Physics. Conference Series, 450, 12015. <https://doi.org/10.1088/1742-6596/450/1/012015>.
19. **Hameed, K.**, Muzammil Khan, M., Shahrukh Ateeq, I., Khan, A., & Ali, M. Wireless fire security system for hospitals. (pp. 266-269). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-32183-2_67.
20. Habib Amber, Ijlal Shahrukh and **Kamran Hameed**. (2013). Biometric Security System based on Fingerprint Recognition. International Journal of Scientific Engineering and Technology.
21. Ateeq, I. S., **Hameed, K.**, Muzammil Khan, Khalid, J., & Ali, M. Proposed implementable model of computer interfaced electrocardiogram (ECG) module. (pp. 229-232). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-32183-2_59.
22. Hussain, S. M., Ateeq, I. S., **Hameed, K.**, Tahir, A., Omair, S. M., Alam, S. I., & Khan, S. H.A novel body temperature measuring and data transmitting system using bio - sensors and real-time transmission technique. (pp. 245-248). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-21729-6_65.
23. **Hameed, K.**, Azhar, F., Shahrukh, I., Muzammil, M., Aamair, M., & Mujeeb, D. Telemetric epilepsy monitoring and seizures aid. (pp. 278-281). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-14998-6_71.
24. Bhatti, M. I., **Hameed, K.**, & Khalid, S. G. Significance of “The insulcagon pump” in the treatment of diabetes. (pp. 646-649). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-03885-3_179.
25. Khalid, S. G., Bhatti, M. I., & **Hameed, K.** (2010). Advancement in insulcagon pump simulating as an artificial pancreas for the treatment of diabetes. Paper presented at the 1-5. <https://doi.org/10.1109/ICIET.2010.5625698>.

Professional development activities

- Workshops attended under the Deanship of Quality and Academic Accreditation for ABET and NCAAA accreditation.
- Workshops attended under the Deanship of E-Learning and Distance Learning: Basics of Blackboard, E-learning: Blackboard Keys and Success Stories.

➤ Technical Trainings.

List of technical trainings

#	Training	Trainer	Date
1.	3D printer Form 3B-plus	formlabs	23 rd March-2023
2.	nanoScan PET/MRI 1T	Mediso	17 th to 20 th October, 2021
3.	Finite Element Modeling Using COMSOL, Multiphysics	COMSOL	26 th April, 2016
4.	National Instrument Lab view core 1	National Instruments	22 nd April 2018 to 24 th April,2018
5.	National Instrument LabVIEW core 2	National Instruments	25 th April 2018 to 26 th April 2018
6.	National Instrument Data acquisition using LabVIEW	National Instruments	29 th April 2018 to 1 st May,2018
7.	Introduction to LabVIEW Graphical Development Environment	National Instruments	20 th June, 2018
8.	Introduction to LabVIEW Real-Time and LabVIEW FPGA	National Instruments	21 st , June, 2018
9.	NI MyRio and MyRio kits Startup and MyDAQ	National Instruments	22nd June 2018
10.	NI Multisim Training and Circuit Design and ELVIS.	National Instruments	23rd June, 2018
11.	NI Elvis and SIGEx Startup	National Instruments	24 th June 2018
12.	NI Biomedical Toolkit Introduction, Working on iWorx biomedical board, iWorx Sensors Package, Vernier Sensors	National Instruments	27 th June 2018
13.	NI LabVIEW Machine Vision and Smart Camera startup	National Instruments	28 th June 2018
14.	NI LabVIEW Control toolbox & The Quanser QUBE™-Servo integrated, modular servomotor control concepts.	National Instruments	29 th June, 2018
15.	Biomechanics sensors.	Biometric Inc.	16 th March 2018 to 23 rd March, 2018
16.	Phywe X-rays/CT/MRI/AFM	Phywe Germany	
17.	VNA and spectrum analyzer	Keysight technologies	28th March, 2018
18.	Fluke safety analyzer and Biomedical stimulator Installation and training	Fluke Co. Ltd	19th April, 2019
19.	KL-730 Biomedical Measurement Training System	K&H MFG, Co. Ltd	6 th March 2018 to 7 th March, 2018
20.	Phywe Laser safety kits/ Educational Laser kits	Phywe, Germany /eLas co. Ltd	24 th Dec 2018 to 26 th Dec ,2018
21.	3D-Printing	MakerBot- USA	May 2015
22.	PCB-Printing	LPKF – S63- Single and Double Layer (FR4 and TMM substrates)	May 2015
23.	Training on the acoustic measurement system	AIMS-III from ONDA	May 2015
24.	Training on Material Testing System	Electropuls E3000	May 2015

Honors & Awards

- Gold Medalist in BSc Biomedical Engineering.
- Merit Scholarship recipient (2002–2005).

International Conference Attended (as Paper Presenter / Served as a reviewer)

#	Name of Conference(s)	Date(s)	Status	Countries(Hybrid)
1.	IEEE CSDE /i-COSTE 2020	16th – 18th December 2020	Research paper Presenter	Gold Cost Australia
2.	IEMTRONICS INTERNATIONAL CONFERENCE	21st – 24th April 2021	Research paper Presenter	Toronto, Canada
3.	IEMTRONICS INTERNATIONAL CONFERENCE	1st – 4th June 2022	Research paper Presenter	Toronto, Canada
4.	2021 International Conference on Biomedical Engineering	14th – 15th September 2021	Served as Reviewer	Perlis, Malaysia
5.	IEMTRONICS INTERNATIONAL CONFERENCE	21st – 24th April 2021	Served as Reviewer	Toronto, Canada
6.	IEMTRONICS INTERNATIONAL CONFERENCE	3 rd – 5 th April , 2024	Research paper Presenter	Imperial College London, UK

Membership of Scientific and Professional Societies

- Pakistan Engineering Council, Registration Number: Biomedical /183
- Aligarh Muslim Old University boy's association, Registration number: L-1525



Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

- 1 LabVIEW programming (advanced)
- 2 MATLAB programming (advanced)
- 3 C + programming
- 4 Assembly Language programming (advanced)
- 5 Verilog (Hardware description language) programming
- 6 Arduino programming
- 7 Origin (advanced)
- 8 GraphPad Prism (Advanced)
- 9 MS Office
- 10 Microsoft Operating Systems
- 11 SolidWorks
- 12 AVR studio
- 13 MPLAB
- 14 Keil
- 15 COMSOL (Basic)
- 16 GATE (Geant4) SIMULATION PROGRAMMING
- 17 Python

Last Update

25 / 07 / 2025