

MOHAMMAD ASIF HUSSAIN*Professor, Department of Electrical and Computer Engineering, King Abdulaziz University***Education**

<i>Degree</i>	<i>Field of Study</i>	<i>Institution</i>	<i>Year</i>
PhD	Biomedical Engineering	IIT Bombay	1994
MS	Biotechnology	AMU Aligarh	1988
BS	Chem.	AMU Aligarh	1986

Academic Experience

<i>From To</i>	<i>Institution</i>	<i>Rank</i>	<i>Title</i>	<i>Full or Part Time</i>
2009-Continued	KAU, KSA	Professor		Full
2005-2009	P.A. College of Engineering	Professor & Head		Full
2004-2005	University of Illinois at Chicago, IL, USA Departments of Bioengineering and Orthodontics	Asst. Professor (Research)		Full
2001-2004	Pennsylvania State University Hershey, PA, USA Department of Surgery and Biomedical Engineering Institute	Postdoctoral Fellow		Full
2000-2001	Yeshiva University, Bronx, New York, USA Albert Einstein College of Medicine	Visiting Scientist		Full
1998-2000	IIT Bombay, India	Asst. Professor (Pool Scientist)		Full
1997-1998	Sree Chitra Tirunal Institute for Medical Science and Technology (SCTIMST), India	Asst. Professor (Pool Scientist)		Full
1995-1996	National Cardiovascular Center Research Institute (NCVC), Osaka, Japan	STA Fellow		Full
1993-1994	IIT Bombay, India	Research Associate		Full

Non-Academic Experience (Including Consultations)**Major Funded Research Projects and Patents From The Last Five Years**

- Project No (TBA) : (Research and Development Office: Ministry of Education, KSA): Approved 2020:**“Graphene Oxide (GO) based Extra Cellular Matrix (ECM) for Functional Cardiac Tissue Engineering KSA International Collaboration Grant, Research Capability Grant” (PI)
- Project No (15-MED5025-03): (KACST, KSA) : Approved 2017:** National Science, Technology and Innovation (NSTIP) : “ Biomaterials for Wound Healing and Diabetic Ulcer Treatment Diabetic proposal” (PI)
- Project Number: 11-NAN1544-03: (KACST, KSA:1-1-2014 -- 30-9-2016:** National Science, Technology and Innovation (NSTIP): “Synthesis and characterization of conductive nanocomposites (enhanced material) for nanoengineered bone tissue engineering” (PI)
- Project Number: 8-NAN132-3 : (KACST, KSA):25-06-2011 – 24-06-2013:**National Science, Technology and Innovation (NSTIP):” Fabrication and characterization of GaN-based nano-structure device” (PI)

Certifications and Professional Registrations**Current Membership in Professional Societies and Organizations**

	<i>Society/Organization</i>	<i>Rank</i>	<i>Since</i>
i.	Society for Biomaterials & Artificial Organs, India	Life Member	1997
ii.	Society for Biological Chemistry (SBC), Bangalore, India	Life Member	2007
iii.	Saudi Scientific Society for Biomedical Engineering (SSSBME)	Member	2011

Honors and Awards

- 1995 Science and Technology Agency (STA) Fellowship awarded by Japan International Science and Technology Exchange Center (JISTEC) and Research and Development Corporation of Japan (JRDC).
- 1997 Senior Research Associate ship awarded by the Council of Scientific and Industrial Research (CSIR), India
- 1997 Young Muslim Scientist Award in Biological Sciences Awarded by The Muslim Association for the Advancement of Science (MAAS), Aligarh, India
- 1998 Junior Investigator Award for a research paper “Quantification of blood hyperviscosity in hypertension and its regulation“ presented in the “Third International Symposium on Atherosclerosis, Thrombosis and Transfusion”, New Delhi, India
- 2007-09 Summer Research Fellowship-2007-2009 awarded jointly by Indian Academy of Sciences (Bangalore), Indian National Science Academy (New Delhi), National Academy of Science (Allahabad).

Institutional and Professional Services: .

- KAU Dept. ABET committee activities
- On Editorial Board “European Journal of Medical Sciences” <http://www.ejmsonline.net/home/>
- On Editorial Board “Trendz in Biotech” A ICBio publication, Bangalore, India
- Reviewers for the Journal of Artificial Organs, USA; JKAU: Eng. Sci. KSA; YJES: Eng. Sci. KSA

Principal Publications/Presentations from the Past Five Years

1. Junmin Lee et. al. (2019). Nanoparticle-Based Hybrid Scaffolds for Deciphering the Role of Multimodal Cues in Cardiac Tissue Engineering *ACS Nano*, online in October 2019 ahead of print.
2. Fallahi, Afsoon; Mandla, Serena; Kerr-Phillip, Thomas; et al. Flexible and Stretchable PEDOT-Embedded Hybrid Substrates for Bioengineering and Sensory Applications. *CHEMNANOMAT*, 5(6), pp. 729-737 Published: JUN 2019
3. Abudula Tuerdimaimaiti, Saeed Usman, Memic Adnan, Gauthaman Kalamegam, Hussain Mohammad Asif, Al-Turaif, Hamad (2019). Electrospun cellulose Nano fibril reinforced PLA/PBS composite scaffold for vascular tissue engineering. *JOURNAL OF POLYMER RESEARCH*, 26 (5).
4. Alkhateeb Abdulhameed, AlAmri Jumaan, Mohammad A. Hussain. Healthcare Facility Variables Important to Biomedical Staffing in Line with 2030 Saudi Vision, Saudi Soc Syst & Ind Engn. (2019) *INDUSTRIAL & SYSTEMS ENGINEERING CONFERENCE (ISEC)* Published: 2019
5. Alkhateeb, Abdulhameed F.; Sahhari, Fahad A.; Hussain, Mohammad A. A Pilot Study of Biomedical Engineering Shared Service for Hospitals in Madinah Munawwarah. IEEE; Saudi Soc Syst & Ind Engn. (2019) *INDUSTRIAL & SYSTEMS ENGINEERING CONFERENCE (ISEC)* Published: 2019.
6. Fazal Khan, Musab Aldhahri, Mohammad Asif Hussain, Kalamegam Gauthaman, Adnan Memic, Adel Abuzenadah, Taha Kumosani, Elie Barbour, Nazeeh Shuja Alothmany, Rabah Wasil Aldhaheeri (2018). Encapsulation of 5-Flurouracil into PLGA nanofibers and Enhanced Anticancer Effect in Combination with Ajwa-Dates-Extract (Phoenix dactylifera L.). *J. Biomed. Nanotechnol.* 14, 553–563.
7. Al-Shawafi WM, Salah N, Alshahrie A, Ahmed YM, Moselhy SS, Hammad AH, Hussain MA, Memic A. (2017). Size controlled ultrafine CeO₂ nanoparticles produced by the microwave assisted route and their antimicrobial activity. *J Mater Sci Mater Med.* 28(11):177.
8. Hani A. Alhadrami , Musab Aldhahri, M. Sh. Abdel-Aahab, Mohammad A. Hussain, G.H. Sewify, Aftab Ahmad, Mohammed Zourob, Esam I. Azhar (2017). Nanofiber Scaffold Coated with Ag and ZnO Nanoparticles for Treatment of Methicillin Resistant Staphylococcus aureus, *American Journal of Nanomaterials.* 5(1), 24-30.
9. Kai Zhu, Su Ryon Shin, Tim van Kempen, Yi-Chen Li, Vidhya Ponraj, Amir Nasajpour, Serena Mandla, Ning Hu, Xiao Liu, Jeroen Leijten, Yi-Dong Lin, Mohammad Asif Hussain, Yu Shrike Zhang, Ali Tamayol, and Ali Khademhosseini, (2017). Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs, *Adv. Funct. Mater.*
10. Su Ryon Shin, Tugba Kilic, Yu Shrike Zhang, Huseyin Avci, Ning Hu, Duckjin Kim, Cristina Branco, Julio Aleman, Solange Massa, Antonia Silvestri, Jian Kang, Anna Desalvo, Mohammed Abdullah Hussaini, Su-Kyoung Chae, Alessandro Polini, Nupura Bhise, Mohammad Asif Hussain, HeaYeon Lee, Mehmet R. Dokmeci, and Ali Khademhosseini, (2017). Label-Free and Regenerative Electrochemical Microfluidic Biosensors for Continual Monitoring of Cell Secretomes. *Adv. Sci.*, 4, 1600522.
11. Arghya Paul, Vijayan Manoharan, Dorothee Krafft, Alexander Assmann, Jorge Alfredo Uquillas, Su Ryon Shin, Anwarul Hasan, Mohammad Asif Hussain, Adnan Memic, Akhilesh K. Gaharwar, Ali Khademhosseini, (2016). Nanoengineered biomimetic hydrogels for guiding human stem cell osteogenesis in three dimensional microenvironments, *Journal of Materials Chemistry B.* 4, 3544.

Recent Professional Development Activities (Workshops, Trainings etc.)