

King Fahd University of Petroleum & Minerals

Dhahran, Saudi Arabia



DOSSIER

of

Dr Anwarul Hasan

Current Rank: **Professor**

Bioengineering Department

College of Chemical and Materials

Submitted for the Award

Distinguished Professor

October, 2025

The applicant confirms that the information given in this dossier is correct, accurate, and complete.

CONFIDENTIAL

DOSSIER

DOSSIER STATUS

New Application	☒	Date:	15-10-2025
Re-Applying	☐	Date of Previous Application:	NA

Summary of Major Achievements

Teaching

- Over 20 years of academic teaching and mentoring experience across KFUPM, Qatar Univ, American Univ of Beirut, Univ of Alberta, Harvard Univ and MIT.
- Taught core and advanced undergraduate and graduate courses in biomaterials, biomechanics, nanotechnology, manufacturing processes, materials science and tissue engineering across four countries (Saudi Arabia, Qatar, Lebanon, and Canada).
- Supervised over **22 graduate students** (PhD and MSc) and **postdoctoral fellows**.
- Consistently achieved top-tier teaching evaluations (average $\geq 9/10$).
- Developed interdisciplinary curricula integrating engineering, medicine and AI.

Research

- Winner of the **Clarivate's Top 0.1% Highly Cited Researchers Award (2023 & 2024)**.
- Ranked in top 50 **out of 70,250** Biomedical Engineering researchers globally (Stanford–Elsevier, 2025).
- Got nominated for the “International Big-on-Small” award at MARSS (International Conference on Manipulation, Automation and Robotics at Small Scales) 2025 conference in Lafayette, USA.
- Authored **305+ peer-reviewed publications** (Google Scholar h-index 70, citations >20,200, i-10 index 237 as of Oct 2025).
- Secured over US\$6.6 million in competitive grants from international and national agencies (Qatar Foundation, NATO, QRDI, Agencies in KSA).
- Pioneered microneedle-based drug delivery and AI-enabled biosensing systems for wound healing and cardiac shock prediction.
- Invented and patented multiple biomedical technologies including AI-enabled microneedle biosensors and oxygen/nitric oxide releasing patches for diabetic wounds. Holds **4 US patents / IP disclosures**.
- Research directly impacts healthcare innovation, chronic disease management, and AI-driven diagnostics.

Community Services

- Editorial board member and guest editor of several international journals (Frontiers in Neurology, Biomedical Science and Engineering, Journal of Materials Science and Chemical Engineering).
- Reviewer for >30 international journals including Nature Scientific Reports, Advanced Science, Acta Biomaterialia, Biomaterials.
- Session Chair and Organizer, World Biomaterials Congress (2020); TERMIS, IEEE-EMBC.
- Founder and organizer of Engineering in Medicine Workshop Series (2016–2022).
- Mentored early-career researchers globally under collaborations with MIT, Harvard, and UIUC.
- Currently chairing the “1st MENA Advances in Bioengineering and Biomedical Engineering Conference” to be held at KFUPM during 8-10th November 2026.

Others

- Research aligns with Vision 2030 goals for Health and Biotechnology transformation.
- Develops AI-enabled biomedical sensors, smart wound healing systems, and biosafe nanomaterials, advancing Saudi biomedical sovereignty.
- Supports national RDI priority domains in Health, Smart Devices, and Digital Technologies.
- Mentors young Saudi researchers to build national capacity in bioengineering innovation.

End of Summary

1. Summary of Experience Record (RESUME)

1.1 Personal Profile

Full Name:	Professor Anwarul Hasan		
Date of Birth:	07, 09, 1979		
Place of Birth:	Dinajpur, Bangladesh		
Department , College:	Bioengineering, College of Chemicals and Materials Engineering		
Date of Employment	03, 2025		
Current Rank:	Professor	Promotion Date of Current Rank:	03, 2025
ORCID #:	https://orcid.org/0000-0001-8380-2233		
SCOPUS #:	Scopus ID: 55765018700		
Researcher ID:	https://scholar.google.com/citations?hl=en&user=2Bue7AQAAAAJ&view_op=list_works&sortby=pubdate		
Address:	Building 7, Room: 110-1, KFUPM		
Telephone (office):	5948	Mobile:	+966 536311371
e-mail:	Mdanwarul.hasan@kfupm.edu.sa		

1.2 Educational Record (recent first)

1905 – 1910	Doctor of Philosophy (Ph.D.) in Mechanical Engineering, University of Alberta, Edmonton, Canada	
	Dissertation Title:	Rheological Behavior and Nano-Microstructure of Complex Fluids: Biomedical and Bitumen-Heavy Oil Applications
	Supervisor Name:	Professor Carlos Lange
1903 – 1905	Master of Science (M.Sc.) in Mechanical Engineering, Kongju National University, Kongju, South Korea	
	Thesis Title:	The Constitutive Behaviour of Metallic Foams Using Nanoindentation Technique and FE Modelling
	Supervisor Name:	Professor Amkee Kim
1997 – 2003	Bachelor of Science in in Mechanical Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh	

1.3 Specialization (Areas of Research Interest)

My research areas are focused mainly on Bioengineering and Biomedical Engineering. Specifically, they are related to: Biomaterials, Tissue Engineering, Regenerative Medicine, Bioprinting, Cancer,

Diabetic Wound Healing, Drug Delivery, Biosensors, Biomechanics, Organs on chips, Machine Learning, Deep Learning and Artificial Intelligence.

- Development of Innovative Biomaterials for Tissue Engineering and Drug Delivery
- Advanced Diagnostics and Solutions for Cancer, Diabetic Wound Healing,
- Biosensors, Biomechanics, Organs on chips
- , Machine Learning, Deep Learning and Artificial Intelligence

1.4 Employment Record (recent first)

2025–Present	Department of Bioengineering, KFUPM, Saudi Arabia
2023–Present	Adjunct Professor, University of Alberta, Canada
2024–Present	Visiting Professor, Terasaki Institute of Biomedical Innovations, USA
2015–2025	Assistant and Associate Professor, Qatar University
2014–2017	Assistant Professor, American University of Beirut
2012–2013	Postdoctoral Fellow, MIT & Harvard Medical School
2010–2010	Research Associate, Alberta Innovates Technology Futures, Canada
2010–2011	Research Scientist, Champion Technologies, Canada

1.5 Consultation and Professional Activities

My **Consultation Activities** and/or **Work** are focused mainly on and/or related to Biomedical Engg

1. May 1, 2022 to June 30, 2022: Consultant: PrinterPrezz, USA,

1.6 Awards, Honors and Professional Affiliations

2025 – Present	Ranked among Top 50 globally (49 th) in Biomedical Engineering (Stanford–Elsevier 2025)
2025	Got nominated for the “International Big-on-Small” award at MARSS (International Conference on Manipulation, Automation and Robotics at Small Scales) 2025 conference in Lafayette, USA.
2023 – 2024	Top 0.1% Highly Cited Researchers Award, Clarivate/Web of Science, 2023 & 2024.
2020 – 2025	Ranked among the Top 2% highly cited researchers in the world, 2020, 2021, 2022, 2023, 2024 and 2025
2020 - 2022	Ranked 51 st out of 38,289 researchers, 106 th out of 64,425 researchers and 320 th out of 50,331 researchers in the world in Biomed Research in 2022, 2021 and 2020 respectively
2015 – 2017	Multiple Farouk Jabre Interdisciplinary Research Awards, AUB, Lebanon (2015 & 2017).
2011 – 2013	NSERC and Alberta Innovates Fellowships, Canada (2011–2013).
20xx – 20xx	Over 16 national and international distinctions recognizing excellence in innovation.

2. TEACHING

Teaching Philosophy

Combines project-based learning, interdisciplinary integration, and mentoring of innovation-oriented student projects aligned with industry and national research priorities.

2.1 Courses Taught at KFUPM

BIOE 337	Applied Physiology for Engineering
BIOE 316	Ethics and Safety in Bioengineering
BIOE 513	Principles and Applications of Tissue Engineering

2.2 Courses Taught outside KFUPM

Course Title	Course Name	Year/ Semester	Number of Students
GENG 231	Materials Science and Eng	Spring and Fall,	73
MECH 645	Nanotechnology	Fall 2020, 2019 and	10
MECH 651	Adv Biomechanics	Fall 2016 and Fall	12
MECH 230	Manufacturing processes	Spring 2016, Fall 2015	73
MECH 633	Biomechanics	Fall 2014 and	25
MECH 634	Biomaterials & Tissue Eng	Spring 2014 and	22
MEC E 390	Numerical Methods	Spring 2008, 2007,	60
MEC E 403	Mechanical Eng Lab II	Fall 2007, Fall 2006	60
MEC E 443	Energy Conversion	Fall 2005	60
IICT 131	Oracle 8i with Developer 6i	Spring 2002, Fall	60

2.3 Student Advising

Currently Advising at KFUPM (25): Currently I am advising 20 undergrad Bioengineering students and 5 graduate students at KFUPM,

In the Past (more than 22)

In the past I advised/supervised numerous graduate and undergrad students as well as post doctoral fellows. The numbers included 7 post doctoral fellows, more than 15 graduate students and numerous undergraduate students.

2.7 Lab Development

Lab Development Activities

1.	Example-1: I developed the Biomedical Engineering Lab at the American University of Beirut.
2.	Example-2: I developed a Biomechanics and Biomaterials Lab at Qatar University
3.	Example-3: I have developed an Innovations in Biomaterials and Tissue Engineering Lab in the department of Bioengineering at KFUPM.
4.	Example-4: I have been developing an AI and Biomedical Innovations Lab in the Dharan Techno Valley (DTV).
5.	Example-5: As the Chair for the Lab Committee, I am overseeing the development of Cell and Tissue Culture Lab in the Bioengineering department at KFUPM

3. Master and Doctoral and Post Doctoral Supervision

I have been involved in the supervision of many Masters and PhD Theses as well as post doctoral fellows' research. I have also served as a member of theses' committee for numerous theses.

Post Doctoral Fellow: 7; Dr Alaa Hilal, Dr Noorunnisa Khanam, Dr Rashid Ahmed, Dr Robin Augustin, Dr Mojtaba Falahati, Dr Joshy K S, and Dr Faiza Afaq

Graduate Students: 15

Thesis/Research Supervision

PhD Thesis (Currently Supervising): One PhD thesis as main supervisor and two as co-supervisor.

MSc Thesis (Currently supervising): Eight MSc thesis as the main supervisor and co-supervisor.

Examples of PhD and MSc Thesis Completed as below

1. PhD Thesis Completed: 2024; Aicha Sidilemine, Novel flexible thermoelectric generator utilizing ga-doped zinc Oxide films for wearable energy harvesting
2. PhD Thesis Completed: 2022; Rashid Ahmed, Development and evaluation of nitric oxide releasing s- nitroso-n-acetylpenicill- amine (snap)/chitosan/PVA hydrogel for wound healing in diabetic rabbits.
3. PhD Thesis Completed: 2025; Anisa Andleeb; Fabrication of polymer based nanocomposite scaffolds and their healing potential for diabetic and burn chronic wounds.
4. MSc Thesis: 2024; MD ASAD-ULLAH, An angiogenic and antibacterial gelma microneedle array patch for diabetic wound healing applications
5. MSc Thesis: 2023; ABDULLA MOSHAROF, Oxygen Releasing GelMA-CaO₂ Microneedle Patches for Diabetic Wound Healing
6. MSc Thesis: 2021; Sumama Nathanakalva, Qatar University, PHBV/PCL composite scaffolds for wound healing applications.
7. MSc Thesis: 2021; Osama Fayyaz, Development and characterization of nickel phosphorus based nanocomposite coatings
8. MSc Thesis: 2019; Adnan Khan, Qatar University, Development and performance evaluation of smart polymeric coatings for corrosion protection of steel.

9. MSc Thesis: 2019; Syed Reza Ur Rehman, Qatar University, Reduced Graphene Oxide Incorporated GelMA Hydrogel Promotes Angiogenesis for Wound Healing Applications.
10. MSc Thesis: 2018; Alap Ali Zahid, Qatar University, Fabrication of a nitric oxide releasing chitosan- PVA-SNAP hydrogel for wound healing application.
11. MSc Thesis: 2018; George Deeb, Enhancement of Physical And Mechanical Properties Of Gel-Ma Towards Application In Wound Healing Procedures.
12. MSc Thesis: 2016; Nour Al Rifai, Lebanese University and American University of Beirut, Culture of PC12 Neuronal Cells in GelMA Hydrogel for Brain Tissue Engineering
13. MSc Thesis: 2016; Fatima Bassam El Hajj, and American University of Beirut, Silver Nanoparticles loaded GelMA hydrogel for antimicrobial coating of medical implants
14. MSc Thesis: 2023; Abitha P V, Accelerated wound healing by sustainable encapsulation of Ganoderma Mushroom extracts into CMC/Pectin-based hydrogel patches impregnated with the hybrid antimicrobial agent
15. MSc Thesis: 2023; Arya Mangalan, Electrospun Fiber Incorporated Oxygen Releasing Hydrogel Matrix For Wound Healing Application

+4. RESEARCH

4.1 Research Interests / Specific Areas

- Biomaterials, Biosensors, AI in Biomedical Systems, Regenerative Medicine, Diabetic Wound Healing, and Organ-on-Chip Technology.

4.2 Research Projects

Research Funding (Pending/Under Review)

Year	Grant Name	Grant Title	Amount
2025	Saudi NIH Grant (Lead-PI)	A Novel AI- enabled wireless ultrasound Doppler system for early detection of Carotid Artery Stenosis	SAR1200,000
2025	Saudi-RDI SEIG Grant (Co- PI)	Generative AI for Advanced Antibiotic Discovery Against Multi-Drug Resistant Pathogens	SAR1600,000
2025	Saudi-RDI BSG Grant (Lead- PI)	A Novel AI-Enabled, Microneedle Array and Wearable Biosensor Based Early Shock Monitoring System for ICU Patients	SAR1600,000

2025	Saudi-RDI BAG Grant (Lead- PI)	A Novel AI Enabled Multi-omics based Early Prediction System for Insulin Resistance in Prediabetic Population in KSA	SAR1600,000
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Research Funding (Currently Active)

Year	Grant Name	Grant Title	Amount
2025-2026	IRC-BSM-KAIMRC Grant	Preclinical Evaluation of an Oxygen and Nitric Oxide releasing Microneedle Array Patch and Development of a Mathematical Model for Chronic Wound Healing	SAR 30,000
2024-2027	QRDI ARG Grant (Lead PI)	A Novel Electrowriting-3D-Bioprinting based VEGF-A/mRNA Releasing Angiogenic and Antibiofilm Patch for Diabetic Wound Healing	US \$ 731,312
2024-2027	QRDI MME Grant (PI)	Concept Design and Validation of an Energy-efficient Clear Solar Glass Greenhouse for Higher Food Production in Arid Climate of Qatar	US \$ 900,000
2024-2027	NATO SPS Grant (PI)	DeeP-MaRS: An AI-assisted bioweapon detection platform	US \$ 640,000

2023-2024	UREP 30 rd Cycle (PI)	Antibacterial and antibiofilm activity of nanofibers bandage formulated with Juniperus communis essential oil targeting antibiotic resistant bacterias	US \$ 30,000
2023-2024	UREP 30 rd Cycle (PI)	A deep learning-enabled elbow rehabilitation robot using an EMG-based neuromuscular interface	US \$ 30,000
2019-2024	NPRP 12 th , Lead PI, Qatar Foundation (Lead PI)	A Microneedle Array Based Patch Releasing Nitric Oxide and Oxygen for Diabetic Wounds and Ulcer Treatment	US \$ 600,000
2019-2024	NPRP 12 th Cycle, PI, Qatar Foundation (PI)	A Novel Contactless ANFIS-EMG Wearable Device for Diabetic Sensorimotor Polyneuropathy (DSPN)	US \$ 600,000

Research Funding (Completed)

2022	QU-Student Grant (Lead PI)	Multifunctional cellulose-f-GO electroactive composite hydrogels for wound healing	US \$ 14000
2022	QU-Student Grant (Lead PI)	Cationic polymer brush grafted superparamagnetic iron oxide nanoparticles for combinatorial siRNA delivery	US \$ 14000

2020	QUERG-CMED-2020-2	Rapid High Throughput Diagnostics for COVID19	US \$ 120,000
2019	QJRC Grant, PI (PI)	A novel heterogeneous expression of IL-6 and Retnla biomarker-based microchip assay for breast and lung cancer	US \$ 200,000
2019	QUHI-CENG-19/20-2, PI, High Impact Grant-2019 (Lead PI)	Advanced Reconfigurable Multiphase Motor Drive System for Electric Vehicle Applications	US \$ 148,500
2019	Student Grant (Lead PI)	Development of an MSN-GQD bead based on Lab-on-a-chip for monitoring and sorting cancer cells	19,950 QR
2019	Student Grant (Lead PI)	Development of a hydrogel with on demand release of thiazole for treatment of Peptic Ulcer	19,950 QR
2018	UREP 23 rd Cycle, Lead PI, Qatar Foundation (Lead PI)	Design and Implementation of a Wearable Smart Insole for Studying Altered Vertical Ground Reaction Forces (GRFs) in Diabetic Sensorimotor Polyneuropathy (DSPN)	US \$ 30,000

2017	NPRP 10th Cycle, Qatar Foundation (Lead PI)	A Novel Microchip Based Spatial Gene Expression Analysis Assay for Breast and Breast and Prostate Cancer	US \$ 600,000
2017	GCC grant, GCC research fund (Lead PI)	A Novel GelMA Hydrogel based Microfluidic Blood-Brain Barrier Prototype for in vitro Studies of Cancer Metastasis	US \$ 360,000
2016	NPRP 9 th Cycle, Lead PI, Qatar Foundation	A Novel Angiogenic Anti-microbial Patch for Diabetic Wounds and Ulcer Treatment	US \$ 900,000
2016	Qatar University Internal Grant (Lead PI)	Development of a Biomimetic Multilayered PCL-PLGA Vascular Graft for Application in Cardiac Bypass Surgeries	QAR 150,000
2016	Farouk Jabre Biomedical Grant, Lebanon (PI)	Novel Neurotherapeutic Approach for Neural Stem Cell Delivery Using Injectable GelMA Hydrogel for Brain Tissue Repair Post Traumatic Brain Injury (TBI)	US \$ 30,000
2016	Student Grant, QU (Lead PI)	Experimental Studies and Development of a Model for Computer Simulation of Human Bones in Osteoporosis	QAR 40,000
2015	Capital Budget for Major Equipment Grant AUB, (Lead PI)	Establishing a Microfluidic Lab in the Biomedical Engineering at American University of Beirut, Lebanon	US \$ 50,000
2015	Farouk Jabre Biomedical Grant, Lebanon, (Lead PI)	Development of a Novel Micro engineered Blood Vessels on Chip	US \$ 30,000

2015	ASHA (American Schools and Hospitals Abroad) Grant	Setting up of a Biomaterials Lab at American University of Beirut	US \$ 50,000
2015	Saudi Arabia, King Abdul Aziz Research Grant (Co-PI)	Tissue Engineering of Heart Valve Leaflets: Experimental Studies and Development of a Model for Computer Simulation	SAR \$ 100,000
2014	Capital Budget for Major Equipment Grant AUB, (Lead PI)	Electrospinning for Development of Novel Biomaterials for Applications in Tissue Engineering	US \$ 50,000
2014	CNRS Grant, Lebanon (Lead PI)	A Tissue Engineered Multilayer Perfusable Blood Vessel	US \$ 20,000
2014	URB (University Research Board) Grant, AUB, (Lead PI)	GelMA Hydrogel based Delivery of Neural Stem Cells in Mouse Brain for Treatment of Traumatic Brain Injury	US \$ 20,000
2014	Start Up Grant, Faculty of Eng., AUB	Setting up of a Tissue Engineering Lab at American University of Beirut	US \$ 50,000

4.3 Publications

4.3.1 Refereed Journal Papers

Please see Appendix A, below

4.3.2 Refereed Conference Papers

Please see Appendix A, below

4.3.3 Book Writing/Editing and Book Chapters

Book Editing

1. Anwarul Hasan (Editor), "Volume 1: Tissue Engineering for Artificial Organs: Regenerative Medicine, Smart Diagnostics and Personalized Medicine", Wiley VCH, Berlin, Germany, 2017
2. Anwarul Hasan (Editor), "Volume 2: Tissue Engineering for Artificial Organs: Regenerative Medicine, Smart Diagnostics and Personalized Medicine", Wiley VCH, Berlin, Germany, 2017
3. Muhammad E.H. Chowdhury, Susu M. Zughaier, Anwarul Hasan, Rashad Alfkey, Diabetic Foot Ulcers - Pathogenesis, Innovative Treatments and AI Applications, Intechopen, UK, 2024

Selected Book Chapters

8. I Pountos, R Tutar, N Tellisi, MA Darabi, A Hasan, N Ashammakhi, The use of organ-on-a-chip methods for testing of nanomaterials, in Design, Fabrication, and Characterization of Multifunctional Nanomaterials, (pp 147-161), 2022
7. N Ashammakhi, M Tavafooghi, A Jafari, SN Kalva, R Augustine, A Hasan, Electrospinning and Three-Dimensional (3D) Printing for Biofabrication, Electrospun Nanofibers, 555-604, 2022

6. Augustine, R., Alhussain, H., Zahid, A. A., Rehman, S. R. U., Ahmed, R., Hasan, A. (2021). Crosslinking Strategies to Develop Hydrogels for Biomedical Applications. Nano Hydrogels (pp. 21-- 57). Springer, Singapore, 2021
5. Safa Azar, Anwarul Hasan, Richard Younes et al. Biofluid Proteomics and Biomarkers in Traumatic Brain Injury. In: Kobeissy F., Stevens, Jr. S. (eds) Neuroproteomics. Methods in Molecular Biology, vol 1598. Humana Press, New York, NY, USA 2017
4. Rami Mhanna, Anwarul Hasan*, "Tissue Engineering: Past Present and Future", In Anwarul Hasan Ed. "Tissue Engineering for Artificial Organs: Regenerative Medicine, Smart Diagnostics and Personalized Medicine", Wiley VCH, Berlin, Germany, 2017
3. Samad Ahadian*, Rahaf Rahal, Javier Ramón-Azcón, Raquel Obregón, Anwarul Hasan*, "Biomaterials in Tissue Engineering", In Anwarul Hasan Ed. "Tissue Engineering for Artificial Organs: Regenerative Medicine, Smart Diagnostics and Personalized Medicine", Wiley VCH, Berlin, Germany, 2017
2. Divya Murali, Kunal Girish Kshirsagar, Anwarul Hasan, Arghya Paul, "Harnessing the potential of stem cells from different sources for tissue Engineering", In Anwarul Hasan Ed. "Tissue Engineering for Artificial Organs: Regenerative Medicine, Smart Diagnostics and Personalized Medicine", Wiley VCH, Berlin, Germany, 2017
1. Anwarul Hasan*, Amir Sanati-Nezhad, Mohammad Ariful Islam, John Saliba, Hani Alhadrami, Adnan Memic, Ayad Jaffa. "Cell-Surface Interactions for Cell Based Biosensors", In Nihal Engin Vrana et al. Ed. "Cell and Material Interface: Advances in Tissue Engineering, Biosensor, Implant, and Imaging Technologies, CRC Press Vol 52, page 79, 2015.

4.3.5 Patents (Filed and/or Registered)

1. Therapeutic Agent Releasing Microneedle Array, A Hasan, US Patent App. 63/424,704, 2023
2. Machine Learning Model for Stratification of Early Diabetic Foot Complication using Thermogram Images, A Khandakar, A Hasan, et al, US Patent App. 63/414,645, 2023
3. Organs-on-chips based organ-support-system for supporting and repair of organs, IP disclosure for patent submitted to Qatar Foundation and Qatar University, US Patent App. 62/609,456, 2019
4. A novel Bioresorbable implant and deployment method for applications in Cardiovascular Anomalies, IP disclosure for patent submitted to Qatar Foundation and Qatar University, 2019

5. COMMUNITY AND PROFESSIONAL SERVICES

5.1 Professional Activities

- Society for Biomaterials, USA. (2017 - Present).
- Tissue Engineering and Regenerative Medicine International Society, USA. (2016 - Present).
- IEEE Engineering in Medicine and Biology Society, United States. (2015 - Present).

5.1.1 Conference Organization

2026: Currently chairing the “1st MENA Advances in Bioengineering and Biomedical Engineering Conference” to be held at KFUPM during 8-10th November 2026.

2022: World Congress on Sciences and Applied Sciences (WCSAS), 28-30 March 2022, Organizing Committee Member, and Session Chair Qatar University, Doha, Qatar.

2020: 11th World Biomaterials Congress, 11-15 December 2020, Symposium organizer and chair on “Immunomodulatory Biomaterials for Tissue Regeneration”, Glasgow, Scotland, UK.

2018: Qatar University-Sultan Qaboos University joint Engineering in Medicine Workshop, Muscat, Oman, 23 December, 2018, Co-Chair and Organizing Committee Member.

2016, 2017, 2018, 2019, 2020, 2021 and 2022: Qatar University International Engineering in Medicine Workshop, Doha, Qatar. Founder, Chair and main organizer.

2015: IEEE-EMBS 3rd International Conference on Advances in Biomedical Engineering (ICABME), Beirut, Lebanon, September 2015, Organizing Committee Member and Chair.

2010: University of Alberta Graduate Students' Association Annual Awards Night, Edmonton, AB, Canada, 2010, Chair of the Award Selection Committee and Organizer in Charge for the Event.

2009: Association of American Aerosol Research Conference, Student member in organizing committee, USA

5.1.2 Conference Presentations

20. 2022 TERMIS-AM Annual Conference, July 10-13, 2022, Toronto, Canada, β -cyclodextrin-doxorubicin Self-assembly Enhances The Efficiency Of Doxorubicin Delivery In Breast Cancer Cells-a Theoretical Approach To The Formation Of Inclusion Complex

26. 2022 TERMIS-AM Annual Conference, July 10-13, 2022, Toronto, Canada, Recent Advances In Wound Healing Patches For Chronic And Diabetic Wounds

25. 2022 TERMIS-AM Annual Conference, July 10-13, 2022, Toronto, Canada, Porous Scaffolds From Zn/hap/rgo For Bone Tissue Engineering: Antimicrobial And In-vitro Evaluations
24. 2019, IEEE –EMBC 41st Annual International Conference, Growth factor

releasing core-shell polymeric scaffolds for tissue engineering applications, Robin Augustine; Alap Ali Zahid; Mian Wang; Thomas J. Webster; Anwarul Hasan,

23. March 2018, Hasan M A., Ali Zahid, A., Syed, R. U. R., Khanam, N., & Alhadrami, H. A. Qatar Foundation Annual Research Conference Proceedings (Vol. 2018, No. 2, p. HBPD1153). Qatar: HBKU Press. Viscoelastic behaviour of Bovine Myocardium and valvular tissue: Applications in Bio prosthetic heart valve with enhanced properties.

22. 2014, Polymer society conferences, A Cross-linked hyaluronic acid based in-vitro tumor cell Culture system, Sang-soo Sohn, Eun-ju Hyun, Md Nurunnabi, Alaa Hilal, John Saliba, Ayad A Jaffa, Anwarul Hasan* and Yong-kyu Lee*

21. September 24-27, 2014, TERMIS-AP International Conference, Daegu, South Korea, Thermo- Sensitive and elastic HA-PAA hydrogel for 3D cell culture and Cardiovascular Tissue Engineering applications, Sang-soo Sohn¹, Eun-ju Hyun, Md Nurunnabi, Alaa Hilal, John Saliba, Ayad A Jaffa, Anwarul Hasan*, and Yong-kyu Lee*

20. June 4-9, 2014, World Congress of Advance Materials, Chongqing, China, Photo Crosslinked Methacrylated Gelatin Based Advanced Hydrogels for Cardiovascular Tissue Engineering and Regenerative Medicine, Dr. Anwarul Hasan

19. April 10-13, 2013, Society for Biomaterials Annual Meeting and Exposition, Boston, MA, USA, A new technique for Development of perfusable multilayered blood vessel-like structures on Microfluidic Chip, MD Anwarul Hasan, Gi Seok Jeong, Arghya Paul, Mehdi Nikkhah, Nasim Annabi, Jonghyun Oh, Mehmet Dokmeci, Ali Khademhosseini, [Poster].

18. August 5-10, 2012, Musculoskeletal Biology & Bioengineering Conference, Andover, NH, USA, “Functional Blood Vessel Capillaries in Methacrylated Gelatin Hydrogel on Microfluidic Chip”, MD. Anwarul Hasan, Adnan Memic, Mehmet R. Dokmeci, Ali Khademhosseini, [Poster].

17. July 15-17, 2011, Champion Technologies Annual Workshop on Industrial Water Treatment, New Orleans, USA, “A New Novel Antifoulant for Complete Treatment of Produced Water in Thermal Recovery of Heavy Oil from Oil Sands”, MD Anwarul Hasan, Glenn Weagle.

16. October 2-3, 2010, BIRS Workshop on Prediction and Control of Pandemic Outbreak, Banff, Alberta, Canada, “Supression and control of Bioaerosol Droplet Generation During Coughing”, MD Anwarul Hasan, Carlos F. Lange.

15. October 26-30, 2009, 28th American Association of Aerosol Research Conference, Minneapolis, Minnesota, USA, “Effect of Surface Tension and Viscoelastic Properties of Mucus on the Size Distribution of Bioaerosol Droplets Generated During Simulated Coughing”, MD. Anwarul Hasan, Malcolm King, Carlos F. Lange.

14. October 23-25, 2008, American Association of Aerosol Research Conference (AAAR 2008), Orlando, Florida, USA. “Controlling the Size Distribution of Bioaerosol Droplets by Modifying the Viscoelastic Properties of Mucus”, M A Hasan, G. Zayas, M King and C F. Lange

13. June 15-20 2007, International Society of Aerosolized Medicine (ISAM 2007) conference, Tours, France. “Effect of viscoelastic properties of mucus on the bioaerosol droplets produced during coughing”, MD Anwarul Hasan, Malcolm King, Zayas Gustavo, Carlos F. Lange. [Poster]
12. May 18-23, 2007, ATS conference, San Francisco California, USA, "A Numerical Method for Estimating Local Airway Surface Liquid Concentrations of Inhaled Antibiotics", MD Anwarul Hasan, C. F. Lange. [Poster]
11. May 14-18 2007, ILASS Conference, Chicago, USA. “Lagrangian to Eulerian Conversion Schemes for Estimating Deposition Probability Rates”. M.I. Rahman, C.F. Lange and M.A. Hasan
10. June 15-20 2007, International Society of Aerosolized Medicine (ISAM 2007) conference, Tours, France. “Optimum Dosage and Local Concentrations of Inhaled Pharmaceutical Aerosols using Numerical Simulation ” MD Anwarul Hasan, and C.F. Lange. [Poster]
9. December 29-30 2008, International Conference on Chemical Engineering (ICChE 2008), Dhaka, Bangladesh, “Dependence of Viscoelastic Properties Of Silica In Ethylene Glycol On The Presence Of Polyethylene Glycol”, MD Anwarul Hasan, Toshiyuki Shikata, Carlos F Lange
8. June 15-19 2008, The 9th International Conference on Petroleum Phase Behavior and Fouling, “Rheological Study of Athabasca Bitumen and Maya Crude Oil”, MD. Anwarul Hasan, Michal Fulem, and John M. Shaw. [Poster]
7. June 2-5 2005, International conference on Control, Automation and Systems (ICCAS 2005), Seoul, Korea. “A Multi-physics Analysis for the Design and Development of Micro-Thermoelectric Coolers”, Seung Woo Han, MD Anwarul Hasan, Jung Yup Kim, Hyun Woo Lee, Kong Hoon Lee, and Ook Jung Kim
6. October 28th-30th 2004, KSME 2004 Fall Conference, South Korea. “Compression-Compression Fatigue Behavior of Al-Si-Cu-Mg Alloy Foams”, Chung Hun Lee, MD Anwarul Hasan, Amkee Kim, and Jeong Gil Do
5. October 6th-8th 2004, Asian Pacific Conf. For Fracture and Strength 2004, South Korea, “The Constitutive Behaviour of Metallic Foams Using Nanoindentation and FE Modeling”, Amkee Kim, MD Anwarul Hasan, Seong-Sik Cheon, Hak-Joo Lee and Seong-Seock Cho
4. July 6th-9th 2004, The Fourth Asian-Australian Conference On Composite materials, Sydney, Australia, “Influence of Foaming Temperature and Time on The Hardness of Cellular Al-Si-Cu-Mg Alloys”, MD Anwarul Hasan, Amkee Kim, Hyo-Jin Lee and Seong-Seock Cho
3. December 27th 2003, 5th International conference on Mechanical Engg, BUET, Dhaka, Bangladesh. “Compressive Mechanical Properties of Closed-Cell Al-Si-Cu-Mg Alloy Foams”, Amkee Kim, MD Anwarul Hasan, Seung Hoon Nahm and Young Du Jun
2. November 7th 2003, 11th APCNDT, Jeju Island, South Korea, “Bending Behavior of Thin-walled Cylindrical Tube Filled with Aluminum Alloy Foams”. Amkee Kim, Seong-Sik Cheon, MD Anwarul Hasan, Hyo-Jin Lee and Seong-Seock Cho

1. December 27th 2003, 5th International conference on Mechanical Engg, BUET, Dhaka, Bangladesh. “On The Performance Study of A Gravity Assisted Heat Pipe”, MD Anwarul Hasan, C. M. Feroz and Sadrul Islam

5.1.3 Selected Keynote/Invited Talks/Lectures

17. October 24-25, 2025, **Keynote Speaker:** the 1st UAE Biomaterials, Biofabrication and Bioengineering Conference, Khalifa University, Abudhabi, UAE.
16. Sep 19, 2022, Nanotechnology, Biomaterials and Tissue Engineering: Environment and Sustainability Effects, Nanomaterials saving the Environment: World Researchers Coming Together, MDPI Materials Webinar.
15. Aug 19, 2022, Biomedical Engineering: A Convergence of Medicine and Engineering, Speaker of the year, Nepali Engineers Association Qatar.
14. March 31, 2022, Tissue Engineering and Organs on Chips: New Paradigm Solutions for Cardiovascular Diseases to Cancers to Diabetic Wound and Ulcer Treatment. Invited Webinar Speaker, College of Engineering, York University, Toronto Canada.
13. Dec 03, 2021, Biomedical Engineering A Perspective for Bangladesh, Annual Keynote Speaker,. Keynote Speech, Institute for Engineers Bangladesh Qatar chapter Annual Seminar, Doha, Qatar.
10. Feb 03, 2016, Advanced Functional Biomaterials for Cardiovascular Tissue Engineering, Department of Mechanical Engineering, University of Calgary, Alberta, Canada
11. Nov 28, 2015, Functional Methacrylated Gelatin Hydrogels for Tissue Engineering, College of Engineering, New York University of Abu Dhabi, UAE
10. Jan 16, 2015, Harvard-MIT Division of Health Sciences and Technology, Harvard Medical School, Cambridge, USA.
9. Nov 20, 2014, Department of Mechanical Engineering, Qatar University, Doha, Qatar
8. Sep 08, 2013, Department of Bioengineering, University of California Berkeley, CA, USA
7. Sep 07, 2013, Department of Chemical and Biomedical Engineering, University of Calgary, Alberta, Canada
6. Sep 04, 2013, Tissue Engineering of Blood Vessels and Heart Valves, Mechanical Engineering Department, University of Alberta, Edmonton, Canada
5. June 21, 2013, Tissue Engineering –Where Medicine meets Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
4. June 18, 2013, Tissue Engineering and Regenerative Medicine for Cardiovascular Diseases, Islamic University of Technology, Gazipur, Bangladesh
3. June 14, 2013, Tissue Engineering of Blood Vessels for Vascular Disease Models on Chips, American University of Beirut, Lebanon
2. May 31, 2013, Cardiovascular Tissue Engineering for In Vitro Disease Models on Chips, Carleton University, Ottawa, Canada.

1. February 27, 2013, From Mechanical to Tissue Engineering- A Personal Perspective on Nano- Micro-Macro Scale Material Characterization, Harvard-MIT Division of Health Sciences and Technology, Harvard Medical School, Cambridge, USA.

5.1.4 Review of Technical/Journal Papers, Proposals and Reports (if any)

Grant Review

- Qatar University internal grant application Review, 2016-2022
- Wellcome Trust, United Kingdom, Sir Henry Dale Fellowship Grant Application Review, 2017
- Farouk Jaber Interdisciplinary Research Grant Review, Beirut, Lebanon 2016
- King Abdullah University of Science and Technology (KAUST) ORS-CRG Grant Review, 2016

Peer Review of Journal Articles

- Nature Scientific Reports Lab on Chips Archives of Microbiology Computational Materials Science Advanced Science
- Adv Healthcare Materials
- Acta Biomaterialia Biomed Research International Adv Functional Materials
- Journal of Biomechanics Behavioral Brain Research ACS Appl Mater Interfaces
- Journal of Mech Behavior
- of Biomedical Materials

5.1.5 Membership of Refereed Journal Editorial Boards

- Editorial Board Member, The Journal Biomedical Science and Engineering
- Editorial Board Member, Journal of Materials Science and Chemical Engineering
- Guest Editor, Frontiers in Neurology (Special Issue, 2020): Developing Successful Neuroprotective Treatments for TBI: Translational Approaches, Novel Directions, Opportunities and Challenges. Published in Feb 2020; Total Views received 0.1 million (100,000) as of Jan 2023

5.2 Committee Work

- **Chair**, IRC-BSM Innovation Goals and Strategies Review Committee, KFUPM, 2025
- **Chair**, Revision of BIOE-MX Program Committee, KFUPM, 2025
- **Chair**, Sub-committee for Five years-BS-MS Program proposal, KFUPM, 2025
- Member, Biomedical Device Concentration Committee, BioE, KFUPM, 2025
- **Chair**, BioE-Premed Committee, BioE, KFUPM, 2025
- **Chair**, BioE Laboratories Coordination Committee, KFUPM, 2025

- **Chair**, ABET Accreditation Student Outcome, I served as a member of the ABET Student Learning Outcome Committee, Qatar University 2016-2022,
- Graduate Program Committee: I served as a member of the Mechanical Engineering Graduate Program Committee, Qatar University 2016-2023,
- Faculty Recruitment Committee: I served as a member of the Faculty Recruitment Committee, Qatar University, 2016-2017
- Senior Project **Coordinator**: I served as the Mechanical Engineering Senior Project Coordinator, Qatar University, 2016-2018
- Website Development Committee: I served as a member of the Mechanical and Industrial Engineering Website Development Committee, Qatar University, 2015-2016
- Annual Design Day Organizer: I served as the organizer of the Mechanical and Industrial Engineering Annual Design Day, Qatar University, 2016-2017
- **Co-Chair**, Biomedical Engineering Graduate Program, I served as the Co-Chair of the Biomedical Engineering Graduate Program Committee, American University of Beirut, Lebanon, 2014-2017,
- University Senate: I was as a member of the University of Alberta Senate: 2008-2010,
- Chancellor Search Committee: I served as a member of the Chancellor Search Committee, University of Alberta: 2008
- Committee for Hiring Dean of Student Services: I was a member of the Dean of Student Services Hiring Committee, University of Alberta, 2010;
- The Vice President External Search Committee: I was a member of the Vice President External Search Committee, University of Alberta, 2010.
- Selection Committee for Department Chair: I served as a member of the Selection Committee for Dept Chair of Mechanical Engineering, University of Alberta 2007-2008.

5.3 Citations and H-index



Hasan, Anwarul, PhD

Professor, Department of Bioengineering, King Fahd University of Petroleum and Minerals

Verified email at kfupm.edu.sa

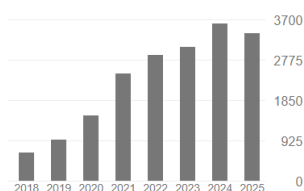
Biomaterials Tissue Engineering Bioprinting Wound Healing Artificial Intelligence



Cited by

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	All	Since 2020
Citations	20200	17012
h-index	70	66
i10-index	237	227



TITLE	CITED BY	YEAR
☐ Electrospun scaffolds for tissue engineering of vascular grafts A Hasan, A Memic, N Annabi, M Hossain, A Paul, MR Dokmeci, ... Acta biomaterialia 10 (1), 11-25	935	2014
☐ Injectable Graphene Oxide/Hydrogel-Based Angiogenic Gene Delivery System for Vasculogenesis and Cardiac Repair AK Arghya Paul, Anwarul Hasan, Hamood Al Kindi, Akhilesh K Gaharwar ... ACS nano 8 (8), 8050-8062	604	2014
☐ p53 signaling in cancer progression and therapy	583	2021

H-index: 70 (Google Scholar, 2025)

Total Citations: 20,100+

i-index: 237

APPENDIX A: List of Journal Publications

Articles Published in Refereed Journals

305. Imtiaz S, Ferdous UT, Nizela A, **Anwarul Hasan**, Shakoor A, Zia AW, Uddin S. Mechanistic study of cancer drug delivery: Current techniques, limitations, and future prospects. *European Journal of Medicinal Chemistry*. 2025:117535.
304. Sumon MSI, Islam MSB, Rahman MS, Hossain MSA, Khandakar A, **Anwarul Hasan**, Murugappan M, Chowdhury MEH. CardioTabNet: a novel hybrid transformer model for heart disease prediction using tabular medical data. *Health Information Science and Systems*. 2025;13(1):44.
303. Zafar MS, Khan MUA, Abdullah MFB, Elfawy LA, Isa EDM, **Anwarul Hasan**, Masri S, Ahmad H. Recent development of ZIF-8 incorporated dressings for wound healing application: current insight and future perspective. *Materials Today Communications*. 2025:112652.
302. Almahal ZH, **Anwarul Hasan**, Razzak SA, Nzila A, Uddin S. Molecular Perspective of Dietary Influences on the Gut Microbiome alongside Neurological Health: Exploring the Gut–Brain Axis. *ACS Chemical Neuroscience*. 2025;16(11):1996–2012.
301. Abedin AJM, Sarmun R, Mushtak A, Ali MSBM, **Anwarul Hasan**, Suganthan PN, Chowdhury MEH. Enhanced coronary artery segmentation and stenosis detection: Leveraging novel deep learning techniques. *Biomedical Signal Processing and Control*. 2025;109:108023.
300. Al-Ansari AA, Nejad FAB, Al-Nasr RJ, Prithula J, Rahman T, **Anwarul Hasan**, Chowdhury MEH, Alam MF. Predicting ICU Mortality Among Septic Patients Using Machine Learning Technique. *Journal of Clinical Medicine*. 2025;14(10):3495.
299. Samadi P, Sheykhhasan M, Omer I, Ullah A, Zarea A, Toomajian V, Khan MUA, Ertas D, Jones LR, Levin AM, ..., **Anwarul Hasan**, et al. Regeneration of cartilage defects using engineered extracellular vesicles. *Biofabrication*. 2025.
298. Chowdhury FA, Hosain MK, Hossain MS, Chowdhury MEH, Mahmud S, Kabir MA, Alqahtani A, **Anwarul Hasan**. Deep learning-based beat-to-beat arterial blood pressure estimation using distant radar signals. *Neural Computing and Applications*. 2025:1–26.
297. Khan Z, Khan N, Mithra G, Veettil RP, Kasote DM, **Anwarul Hasan**, Sadasivuni KK. Therapeutic applications of nanobots and nanocarriers in cancer treatment. *Analytical Sciences*. 2025:1–20.
296. Yasin T, Zafar MS, Khan MUA, Khan H, Albishi HM, Eid TM, Javed A, Siddiqui HM, **Anwarul Hasan** Composite hydrogels from carrageenan-cl-carboxymethyl chitosan–PVA incorporated ZIF-8 as dressing material for wound healing applications. *Polymer Bulletin*. 2025:1–23.

295. Ullah A, Zaidi MB, Al Mamun A, Roome T, Hakim S, Shin SR, **Anwarul Hasan**, A visible light crosslinked angiogenic and anti-inflammatory GelMA microneedle array patch co-releasing nitric oxide and oxygen for diabetic wound healing. *International Journal of Biological Macromolecules*. 2025:145450. (Your CV lists a 2024 submitted Biomaterials version; the published IJBIOMAC 2025 article is not in your CV.)
294. Eranikkal N, Riyamol KR, Shafaf H, Nawshad M, Maurya MR, **Anwarul Hasan**, Das P, Sadasivuni KK. Microwave-Assisted Synthesis of Nitrogen-Doped Carbon Dots for Sensitive Fluorescence-Based Urea Detection in Soil. *Journal of Fluorescence*. 2025:1–12.
293. Marei HE, Bedair K, **Anwarul Hasan**, Al-Mansoori L, Gaiba A, Morrione A, Cenciarelli C, Giordano A. Targeting CDKs in cancer therapy: advances in PROTACs and molecular glues. *NPJ Precision Oncology*. 2025;9(1):1–17.
292. Hasan A, Chowdhury MEH, Birahim SA, Roy T, Paul A **Anwarul Hasan**, Muyeen SM. Zero-Shot Segmentation Meets EfficientNetB7-MHA: An Explainable Deep Learning Framework for Real-Time Plant Disease Detection. *Engineering Research Express*. 2025.
291. Khan MUA, Hakkarainen M, Abdullah MFB, Tayebi L, Gul H, **Anwarul Hasan**, Recent perspective of chitosan in wound healing approaches—A review. *Materials Today Communications*. 2025;47:113288.
290. Khan MM, Chowdhury AT, Sumon MSI, Maheboob SN, Ali A, Thabet AN, Al-Rumaihi G, Belkhair S, AlSulaiti G, Ayyad A,....., **Anwarul Hasan**, et al. Multi-class subarachnoid hemorrhage severity prediction: addressing challenges in predicting rare outcomes. *Neurosurgical Review*. 2025;48(1):1–15.
289. Poovadichalil NM, Ullah A, Maurya MR, **Anwarul Hasan**, Sadasivuni KK. Eco-friendly paper-based colorimetric sensor for portable and rapid detection of lead (II) ions in aqueous environment. *International Journal of Environmental Science and Technology*. 2025:1–12.
288. Al Mamun A, Shamiya Y, **Anwarul Hasan**, Paul A. Article Type: Minireview — Unlocking the Potential of Stimuli-Responsive Injectable Hydrogels for Bone Healing Applications. *Frontiers in Biomaterials Science*. 2025;4:1641339.
287. Basak P, Mushtak A, Ouda M, Nobl SF, **Anwarul Hasan**, Chowdhury MEH. Improving pediatric trauma care: an automated system for wrist trauma detection using GELAN. *Neural Computing and Applications*. 2025;37(30):25095–25121.
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285. L Aicha S, J Bhadra, A Popelka, MR Maurya, KK Sadasivuni, RA Shakoor, **Anwarul Hasan**, Experimental analysis of free-standing and substrate-constrained Ga-doped ZnO nanostructured thermoelectric films, *Heliyon* 10 (21), **2024**,
284. AS Lemine, J Bhadra, A Popelka, RA Shakoor, Z Ahmad, NJ Al-Thani, **Anwarul Hasan**, Synergistic effect of concentration and annealing on structural, mechanical, and room-temperature thermoelectric properties of n-type Ga-doped ZnO films, *Ceramics International* 50 (22), 47741-47753, **2024**,
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281. MUA Khan, M Hashem, H Fouad, HM Albishi, TM Eid, A Abdal-hay, Anwarul Hasan, Bioactive Hydrogel (ZIF-8@ CMC-PVA-SA) as Dressing Materials for Wound Healing Applications, *Materials Today Communications*, 111282, **2024**,
280. MUA Khan, MA Aslam, MFB Abdullah, H Gul, GM Stojanović, A Abdal-Hay, **Anwarul Hasan**, Microneedle system for tissue engineering and regenerative medicines: a smart and efficient therapeutic approach, *Biofabrication* 16 (4), 042005, **2024**
279. MUA Khan, MA Aslam, MFB Abdullah, WS Al-Arjan, GM Stojanovic, **Anwarul Hasan**, Hydrogels: Classifications, fundamental properties, applications, and scopes in recent advances in tissue engineering and regenerative medicine—A comprehensive review, *Arabian Journal of Chemistry*, 105968, **2024**
278. AS Lemine, J Bhadra, KK Sadasivuni, A Popelka, S Yempally, Z Ahmad, **Anwarul Hasan**, 3D printing flexible Ga-doped ZnO films for wearable energy harvesting: thermoelectric and piezoelectric nanogenerators, *Journal of Materials Science: Materials in Electronics* 35 (24), 1639, **2024**
277. SR ur Rehman, A Ullah, R Augustine, YB Dalvi, AA Zahid, N Ashammakhi, **Anwarul Hasan**, Enhanced wound healing by nanoengineered hydrogel patch loaded with connective tissue growth factor, *Materials Today Communications* 40, 109825, **2024**
276. N Masood, H Hameed, M Tariq, R Ahmed, M Khalid, N Latief, **A Hasan**, Therapeutic efficacy of *Strobilanthes urticifolia*-infused pectin/polyacrylic acid hydrogel for targeted hepatorenal fibrosis mitigation: A multifaceted biomaterial approach, *Microscopy Research and Technique*, 2024; 1–15, **2024**
275. MUA Khan, MA Aslam, T Yasin, MFB Abdullah, GM Stojanović, HM Siddiqui, **Anwarul Hasan**, Metal-organic frameworks: synthesis, properties, wound dressing, challenges and

scopes in advanced wound dressing, Biomedical Materials, Biomedical Materials 19 (5), 052001, **2024**

274. MSB Islam, J Islam, MS Islam, MSI Sumon, M Nahiduzzaman, M. Murugappan, **Anwarul Hasan**, and Muhammad E. H. Chowdhury; Development of Low Cost, Automated Digital Microscopes Allowing Rapid Whole Slide Imaging for Detecting Malaria, Surveillance, Prevention, and Control of Infectious Diseases, pp 73–96, **2024**
273. K Jadidi, MF Tafti, MH Dianat, S Rafati, M Ghiasi, N Rafati, F Modarresi, **Anwarul Hasan**, Acellular human amniotic membrane: A safe and stable matrix for corneal stromal regeneration, Colloids and Surfaces A: Physicochemical and Engineering Aspects 690, 133745, **2024**
272. M Zunaed, A Hasan, T Hasan, Improving Pediatric Pneumonia Diagnosis with Adult Chest X-ray Images Utilizing Contrastive Learning and Embedding Similarity, arXiv preprint arXiv:2404.12958, **2024**
271. A Khandakar, MEH Chowdhury, MBI Reaz, SHM Ali, S Kiranyaz, **A Hasan**, Machine learning model for stratification of early diabetic foot complication using thermogram images, US Patent App. 18/378,479, **2024**
270. R Sarmun, MEH Chowdhury, M Murugappan, A Aqel, M Ezzuddin, **A Hasan**, Diabetic Foot Ulcer Detection: Combining Deep Learning Models for Improved Localization, Cognitive Computation, **2024**
269. L Aicha S, J Bhadra, A Popelka, RA Shakoor, Z Ahmad, NJ Al-Thani, **Anwarul Hasan**, Synergistic effect of concentration and annealing on structural, mechanical, and room-temperature thermoelectric properties of n-type Ga-doped ZnO films, Ceramics International, **2024**,
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267. AS Lemine, Z Ahmad, NJ Al-Thani, A Hasan, J Bhadra, Mechanical properties of human hepatic tissues to develop liver-mimicking phantoms for medical applications, Biomechanics and Modeling in Mechanobiology 23 (2), 373-396, **2024**
266. F Bushra, MEH Chowdhury, R Sarmun, S Kabir, M Said, SB Zoghoul, A Mushtak, I Al-Hashimi, A Alqahtani, **A Hasan**, Deep learning in computed tomography pulmonary angiography imaging: A dual-pronged approach for pulmonary embolism detection, Expert Systems with Applications 245, 123029, **2024**

265. S Mehmood, N Akhtar, M Arshad, U Azhar, S Ullah, TS Waris, F Jabbar, **A Hasan**, F Iqbal, AA Chaudhry, I Rehman, M Yar, A novel methodology for stabilization of silver nanoparticles on cotton, nylon and cotton/nylon fabrics using chitosan and triethyl orthoformate for enhanced and elongated anti -bacterial performance, International Journal of Biological Macromolecules, 129256, **2024**
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259. AS Lemine, Z Ahmad, NJ Al-Thani, **A Hasan**, J Bhadra, Mechanical properties of human hepatic tissues to develop liver-mimicking phantoms for medical applications, Biomechanics and Modeling in Mechanobiology, 1-24, **2023**
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256. SN Ali, SB Shuvo, T Hasan, MIS Al-Manzo, MDA Hasan, Authorea Preprints, An End-to-end Deep Learning Framework for Real-Time Denoising of Heart Sounds for Effective Computer-Aided Auscultation in Unseen Noise, IEEE Access, 11, 87887 – 87901, **2023**

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251. MEH. Chowdhury, **A Hasan**, A Novel 1D MultiResLinkNet Network Model for Estimating Continuous Blood Pressure Waveform from Non-invasive Non-Contact Raw Radar Signals (Submitted) **2023**
250. EO Mahgoub, WC Cho, M Sharifi, M Falahati, HA Zeinabad, HE Marei, Anwarul Hasan, Role of functional genomics in identifying cancer drug resistance and overcoming cancer therapy relapse, *Heliyon*, **2023**
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APPENDIX B: List of Selected Conference Publications/Presentations

A Partial List of Some Selected Articles Published in Refereed Proceedings

27. Rehman, S. R., Augustine, R., Zahid, A. A., Hasan, A. Angiogenic Effect of Reduced Graphene Oxide Incorporated GelMA Hydrogel for Wound Dressing (50000th ed., vol. 40000, pp. 60000). Society for Biomaterials, 2021
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