Dr. Syed Mohammed Shamsul Islam

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ECU Staff Profile, ORCID, Scopus Id
Publons, ResearchGate , Google Scholar
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Linkedin, Twitter

CAREER HIGHLIGHTS

- Around eight years of active teaching and 12 years of postdoctoral research in multidisciplinary areas in different Australian universities with core strength in *Image Processing and Computer Vision.*
- Strong academic background with a *PhD with* distinction (UWA) and an **MSc** (KFUPM) in Computer Engineering and, a Postgrad Diploma in Technical Education (IUT).
- Chief Investigator of an *NHMRC Ideas 2019 grant* of $652,128 and 15 other external research grants (over $3.8 M of total funding).
- Authorship of over **68** *Scopus indexed peer reviewed scholarly articles including 31 journals* (21 in Quartile-1 including one in top 1%).
- Scopus citations of 1172 (h-index-18) and Google Scholar citations of 2051 (h-index-22).
- Field-Weighted Citation Impact **(FWCI) of 2.41** in FoR-08 and **7.3 in Object Detection**; CNN; IOU (2015-2019)
- Supervision to completion of *10 HDR students* and currently supervising four others.
- 27 public media releases including a *TV news* that reached an audience of 7.75 million people and a generated coverage worth $71,720.
- Receiver of the ECU *High Achieving Researcher Award'22* and best paper awards in IVCNZ'22, DICTA'19, DICTA 21, and ICMLDE'18 conferences.
- *Associate Editor of IEEE Access* and Guest Editor of Applied Sciences and Healthcare.
- Regular reviewer of 10+ Q1 journals (including IEEE Trans. on Medical Imaging, Proceedings of IEEE and ACM Computing Surveys).
- Evaluator of four national and international grants and examiner of 17 theses.
- Reviewer of over 30 conferences (including CVPR, ECCV and WACV).
- Organising Committee member of 13 conferences (including General Chair for DICTA'2024 and Invited Session Chair for ICONIP 2023).
- Senior member of IEEE and Australian Computer Society.
- Member, Scholarship Committee and Chair, WA Chapter, IEEE SPS.
- Australian citizen.

EDUCATIONAL QUALIFICATION

PhD with Distinction in Computer Engineering (Apr 6, 2011, UWA)
- o Research focus: **Computer Vision and Machine Learning**
- o Thesis Title: *Human recognition using local 3D ear and face features*.
- o "Award of Distinction" which is conferred upon the top 5%–8% of the theses completed in a year.
- o Nominated by then School of Computer Science and Software Engineering (CSSE), UWA for the "Australasian Distinguished Doctoral Dissertation, 2010" awarded by the CORE.
- o Thesis downloaded 409 times from UWA research repository.

Master of Science in Computer Engineering (Feb 1, 2006)
- o Major: **Computer Vision, Networking, Artificial Intelligence, Robotics and Augmented Reality**.
- o King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia. (200th in the world and 1st in Arab Region, 2020 QS World University Rankings)
- o First Class, CGPA 3.22 on a scale of 4.
- o Thesis Title: *Design of a Graphical User Interface to Augment a Telerobotic Stereo- vision System.*

Certificate in Artificial Intelligence: Cloud and Edge Implementations (online) (May 12, 2022)
- o University of Oxford, Oxford, United Kingdom
- o Conducted by: Department for Continuing Education
- o Duration: Dec 4, 2021 to Mar 8, 2022
- o Topic covered: Artificial intelligence (AI), machine learning and DevOps (MLOps), cloud computing, and edge computing

Certificate in Artificial Intelligence for Agriculture Technology and Climate Change (online) (June 19, 2022)
- o University of Oxford, Oxford, United Kingdom
- o Conducted by: Department for Continuing Education
- o Duration: June 5-16, 2023
- o Topic covered: Digital agriculture and the impact of AI, Management and market ecosystems for AI and AgTech, AI and AgTech Technologies, Agri Analytics.

Post Grad. Diploma in Technical Education with specialization in Electrical Engineering (Oct 30, 2002)
- o Islamic University of Technology (IUT), Dhaka, Bangladesh.
- o 1st Class, CGPA 4.10 on a scale of 5.

o Thesis Title: *A Comparative Analysis of the Effect of Using Various Teaching Aids and Developing a Computerized Teachers Evaluation System*

Bachelor of Science (**with Honours) in Electrical and Electronic Engineering** (Nov 20, 2000)
o **Major in Computing** (with all fundamental units in Computer Science).
o Islamic Institute of Technology (IIT), existing [IUT](), Dhaka, Bangladesh.
o First Class with honours, CGPA 4.27 on a scale of 5.
o Thesis Title: *Design and Implementation of Result Processing System of IIT.*
o Best thesis of the year, presentation attended by the Vice-Chancellor of the university and recommended for adoption for the university.

PROFESSIONAL EMPLOYMENT HISTORY

Senior Lecturer (Associate Professor in American System**)** (Nov 16, 2020 - Continued), Academic Level-C
Discipline of Computing and Security, School of Science
Edith Cowan University, Joondalup, WA 6027.
o <u>Course/Unit Taught:</u> Lecturing, tutoring and coordination of Lecturing, tutoring and unit coordination of:
  ▪ Postgrad: *Artificial Intelligence (AI)*, *Systems Analysis*
  ▪ Undergrad: *Intelligent Systems*, *Systems Analysis*, *Object Oriented Analysis and Design*.
o Supervision of course work students' projects including Applied IT Projects (UG), Work Integrated Learning (UG), Special Topic PG) and Applied Projects (PG).
o Developed lectures, tutorials and assessment items.
o Research students' supervision, and conducting and managing funded research projects.

Lecturer (Jun 1, 2016 – Nov 15, 2020), Academic Level-B
Discipline of Computing and Security, School of Science
Edith Cowan University, Joondalup, WA 6027.
o <u>Course/Unit Taught:</u> Lecturing, tutoring and coordination of Lecturing, tutoring and unit coordination of:
  ▪ Postgrad: *Artificial Intelligence (AI)*, *Systems Analysis*
  ▪ Undergrad: *Intelligent Systems*, *Systems Analysis*, *Object Oriented Analysis and Design*.
o Supervision of course work students' projects including Applied IT Projects (UG), Work Integrated Learning (UG), Special Topic PG) and Applied Projects (PG).
o Developed a new unit (AI) including all the lectures, tutorials and assessment items.
o Re-developed lectures, tutorials and assessment items for all other units.
o Research students' supervision, and conducting and managing funded research projects.

Lecturer (May 13, 2015 – May 31, 2016)
Department of Electrical, Electronic and Computer Engineering, School of Engineering, Computing and Mathematics, The University of Western Australia, Crawley, WA 6009.

CV of Dr Syed Islam

- o Course/Unit Taught: Lecturing, tutoring and lab demonstration of *C Programming* part of *Robotics* unit (Masters level unit).
- o Developed six lectures and four workshops (on C Programming) from the scratch. I also developed assessments for the new materials. Students appreciated the newly developed materials which is evident from their comments in SPOT report such as "Notes are well prepared", "Good examples provided", "He is through and gives good examples".

Research Officer (Jan 4, 2016 – Apr 22, 2016) [Casual, 163 hours]
School of Computing and Mathematics, Charles Sturt University, Victoria, Australia.
- o Developed networking and cyber security-based algorithm and testing with Dr. Rafiqul Islam, Assoc/Prof in Computing and Lead, Cyber Security Research Group.
- o Produced one IEEE Conference paper and a journal manuscript.

Lecturer/ Sessional Academic (Jun 30, 2015- Mar 1, 2016)
Department of Electrical and Computer Engineering, School of Electrical Engineering and Computing, Faculty of Science and Engineering, Curtin University, Bentley, WA.
- o Course/Unit Taught: Lecturing and, tutoring of *Engineering Embedded Software Engineering (EES),* an undergraduate unit and *Microcomputer Systems (MCS),* a postgraduate unit.
- o Developed some lectures and tutorial sheets from the scratch for ESE unit.
- o Changed the unit outline incorporating online quizzes and individual research topic presentation
- o Developed assessment items and their evaluation rubrics in Blackboard.
- o Embedded Project Based Learning involving design of an innovative project.
- o Developed "*Food for Thought (FFT)*" tasks for students involving group discussion, research and presentation to the whole class.
- o Assisted the Course Coordinator in coordinating the lecturer and lab demonstrators of overseas campuses (one at Miri, Malaysia and another at Sri Lanka)
- o Engaged with industry having students investigating one of the embedded systems of a well-known industry).

Adjunct Lecturer (Mar 2, 2016 – Mar 1, 2019)
Department of Computer Science and Software Engineering, School of Engineering, Computing and Mathematics, The University of Western Australia, Crawley, WA 6009.
- o Course/Unit Taught: Lecturing and Tutoring of *Algorithms, Agents and Artificial Intelligence (AAAI)* unit and Lab Demonstration of *Data Structures and Algorithms*, *Data Warehousing and Data Mining* and *Object-oriented Programming and Software Engineering* units.
- o Developed new lecture and lab materials for the AAAI unit contributing to a SPOT (Student Perception of Teaching) score of 4.14 out of 5 which was above the faculty mean score at UWA and the highest in the last three years for the unit. Some of the comments of the students in SPOT report includes "He is very patient to explain difficult problems", "Shams is extremely approachable and listen to student feedback", "Shows a lot of enthusiasm and makes himself available for help. Gives us a lot of feedback".
- o Designed and conducted projects in consultation with the unit coordinator for the Data Warehousing and Data Modeling unit, using industry (Medicare and Centrelink) data.
- o Supervised Masters and PhD research students with Prof Ajmal Mian and Prof Bennamoun.

Research Fellow (0.8FTE) (May 20, 2013 – May 19, 2015), Academic Level-B
Department of Mechanical Engineering, School of Civil and Mech. Engineering, Curtin University, WA.
  - o Developed algorithms for Computer Vision-based maritime surveillance (a project of Deference Science and Technology (DST) on a problem related Australian Navy)
  - o Produced a technical report, and a journal manuscript (could not publish due to the data confidentiality issue).

Research Assistant Professor/Research Fellow (Feb 1, 2011 – Dec 31, 2015), Academic Level-B
School of Dentistry/Oral Health Centre of Western Australia (OHCWA), UWA.
  - o Full-time until Dec 31, 2012.
  - o Developed algorithms for detection and treatment planning for Sleep Apnoea and other Orthodontic disorders using 3D facial surface image and CT/CBCT scans.
  - o Published four journal articles and seven conference papers from this work.

Medical Imaging Consultant (May 19, 2013- Aug 21, 2015 (0.2FTE), Jan 1, 2013- May 19, 2013 (1FTE))
The Orthodontics, 103 York St, Subiaco, Western Australia 6008.
  - o Analysed Cone Beam Computed Tomography (CBCT) and 3D surface images for different orthodontic and sleep apnea patients.

Tutor/ Sessional Academic (Aug 4, 2014- Dec 2014)
Department of Mechanical Engineering, School of Civil and Mech. Engineering, Curtin University, WA.
  - o Course/Unit Taught: *Engineering Programming 100 (using C/C++).*

Lecturer B (Feb 8 - Jun 3, 2006)
Department of COE, KFUPM.
  - o Courses/Units: Computer Architecture and Robotics at undergraduate level.
  - o Supervised final-year students' projects and Telerobotic research laboratory.

Lecturer (May 1, 2002- Feb 28, 2003)
Department of Computer Science and Engineering (CSE), Asian University of Bangladesh (AUB)**.**
  - o Courses/Units Taught: Programming Language C/C++, Introduction to Computer and Its Applications, Electrical Technology, Data Structure, Database Management, System Analysis and Design, and Basic Electronics.
  - o Actively participated in the curriculum development of BSc in Information Technology and BSc in Electronics Programs.
  - o Developed lecture slides and tutorial sheets for most of the units I taught.

Lecturer-cum-Programmer (Jul 9, 2001- Apr 30, 2002)
Department of Computer Science and Engineering (CSE), Asian University of Bangladesh (AUB)**.**
  - o Maintained and enhanced *Result and Admission System* software of the university.
  - o Trained staff members on software uses.

PUBLICATIONS

TPP: Topic Prominence Percentile (SciVal), FWCI: Field-Weighted Citation Impact

♦ *Journal Articles*

[J31] Shaikh, M.B., Chai, D., **Islam, S.M.S.** and Akhtar, N. "MHAiR: A dataset of Audio-image Representations for Multimodal Human Actions", Data, MDPI [IF- 2.6 (Q2)] (Accepted on Nov 21, 2023)

[J30] Noman, M.K., **Islam, S.M.S.**, Jalali, S.M.J., Abu-Khalaf, J. and Lavery, P "BAOS-CNN: A novel deep neuroevolution algorithm for multispecies seagrass detection", PLOS ONE. [IF22- 3.7, JCI22-0.91 (Q1), SJR22-0.89 (Q1)] (Accepted on Nov 6, 2023)

[J29] Shaikh, M.B., Chai, D., **Islam, S.M.S.** and Akhtar, N. "Multimodal Fusion for Audio-Image and Video Action Recognition", Neural Computing and Applications. [IF- 5.60(Q1)] (Accepted on Oct 21, 2023)

[J28] Moniruzzaman, M.; Rassau, A.; Chai, Douglas and **Islam, S.M.S.** (2023) "Structure Aware Image Translation-based Long Future Prediction for Enhancement of Ground Robotic Vehicle Teleoperation" Advanced Intelligent Systems, Vol. 5, Issue 10, Article 2200439. https://doi.org/10.1002/aisy.202200439 [IF-7.298(Q1), 9th/65 in Automation & Control Systems]

[J27] Biyanka, J.; Ihdayhid,A.R.; Lan, N.S.R.; Pathan, F.; Patel, S.; Arnott, C.; Gemma Figtree, G.; Kritharides, L.; **Islam, S.M.S.** and Nicholls, S.J. (2023)"Artificial Intelligence in Cardiology: An Australian Perspective Artificial Intelligence in Cardiology: An Australian Perspective". Heart, Lung and Circulation, Elsevier. Vol. 32, Issue 8, pp. 894-904. https://doi.org/10.1016/j.hlc.2023.06.703
[IF-2.838, SJR-0.72, Q2]

[J26] Shaikh, M.B., Chai, D., **Islam, S.M.S.** and Akhtar, N. (2023) "PyMAiVAR: An open-source python suit for audio-image representation for human action recognition", Software Impacts, Elsevier, Vol. 17, Article 100544), https://doi.org/10.1016/j.simpa.2023.100544. [IF-2.1, SJR-0.38, Q3]

[J25] Noman, MK, **Islam, SMS**, Abu-Khalaf, J, Jalali, SMJ and Lavery, P (2023) "Improving accuracy and efficiency in seagrass detection using state-of-the-art AI techniques", Ecological Informatics, Vol. 76, Article 102047, https://doi.org/10.1016/j.ecoinf.2023.102047.
[IF22-4.498, SJR21:0.87, Q1]

[J24] Moniruzzaman, M.; Rassau, A.; Chai, Douglas and **Islam, S.M.S.** (2023) "Long Future Frame Prediction using Optical Flow informed Deep Neural Networks for Enhancement of Robotic Teleoperation in High Latency Environments". Journal of Field Robotics, 40(2):393-425. https://doi.org/10.1002/rob.22135 [IF20-3.581, SJR21: 2.34,Q1]

[J23] Moniruzzaman, M.; Rassau, A.; Chai, Douglas and **Islam, S.M.S.** (2022) "High Latency Unmanned Ground Vehicle Teleoperation Enhancement by Presentation of Estimated Future through Video Transformation". Journal of Intelligent & Robotic Systems, Vol. 106, Article 48, https://doi.org/10.1007/s10846-022-01749-3. [IF21-3.129, SJR: 0.82, Q1]

[J22] Jalali, SMJ; Ahmadian, S; Nakisa, B.; Khodayar, M; Khosravi, A; Nahavandi, S; **Islam, SMS**; Shafie-Khah, M and Catalão, JPS (2022) "Solar irradiance forecasting using a novel hybrid deep ensemble reinforcement learning algorithm", Sustainable Energy, Grids and Networks, Vol. 32 (100903). https://doi.org/10.1016/j.segan.2022.100903 [IF21 **5.405,** SJR 1.2, Q**1**]

[J21] Moniruzzaman, M.; Rassau, A.; Chai, Douglas and **Islam, S.M.S.** (2022) "Teleoperation methods and enhancement techniques for mobile robots: A comprehensive survey". Robotics and Autonomous Systems, Vol. 150 (2022), 103973, doi:10.1016/j.robot.2021.103973. [FWCI-6.89, IF2020: **3.70**, Cite Score: 8.1, SJR: 1.2(**Q1**)]

[J20] Jalali, SMJ; Ahmadian, S; Noman, MK; Khosravi, A; **Islam, SMS**; Wang, F and Catalao, JPS (2022) "Novel Uncertainty-Aware Deep Neuroevolution Algorithm to Quantify Tidal Forecasting". IEEE Transactions on Industry Applications, Vol. 58 (3), DOI: 10.1109/TIA.2022.3162186 [IF21: **4.079** (**Q1**), Cite Score: 9.7, SJR: 1.98(Q1)]

[J19] Petrykowski, F., Lam, R., Lewis, R., and **Islam, S.M.S.** and Goonewardene, M., (2022)"Airway morphology and its influence on OSA severity and surgical intervention: A retrospective study". Australasian Orthodontic Journal, Vol. 38(2), pp. 307-318. DOI: 10.2478/aoj-2022-031 [IF21: 0.32 (Q4), SJR: 0.14]

[J18] Mursalin, M. and **Islam, S.M.S.** (2021) "Deep Learning for 3D Ear Detection: A Complete Pipeline from Data Generation to Segmentation", IEEE ACCESS, 9(19 November 2021), 164976-164985, doi: 10.1109/ACCESS.2021.3129507 [IF21: 3.476, SJR21: 0.93(**Q1**)]

[J17] Ahmadian, S; Jalali, SMJ; **Islam, SMS**; Khosravi, A; Fazli, E and Nahavandi, S (2021) "A Novel Deep Neuroevolution-Based Image Classification Method to Diagnose Coronavirus Disease (COVID-19)", Computers in Biology and Medicine, Volume 139, 2021, 104994, ISSN 0010-4825, https://doi.org/10.1016/j.compbiomed.2021.104994. [IF21 **6.698** (**Q1**), SJR-1.31 (Q1-Computer Science and Applications)]

[J16] Altaf, F., **Islam, S.M.S.,** and Janjua, N.K. (2021), "A Novel Augmented Deep Transfer Learning for Classification of COVID-19 and Other Thoracic Diseases from X-rays", Neural Computing and Applications, https://doi.org/10.1007/s00521-021-06044-0. [IF20-5.606 (**Q1**, Computer Science, Artificial Intelligence- SCIE), 5YIF-5.573, SJR: 0.71]

[J15] Mohsin, A., Janjua, N., **Islam S.M.S.** and Ali Babar, M., (2020) "SAM-SoS: A Stochastic Software Architecture Modeling and Verification Framework for Complex System-of-Systems". IEEE Access, vol. 8, pp. 177580-177603, 2020, doi: 10.1109/ACCESS.2020.3025934. [IF20-3.67 (**Q1**), 5YIF-4.540, SJR: 0.59 (Q1-Computer Science)]

[J14] Islam, K.T.; Raj ,R.G.; **Islam, S.M.S.**; Wijewickrema, S.; Collins, A.; Hossain, M.S.; Razmovski T. and O'Leary S. (2020) "A Vision-Based Machine Learning Method for Barrier

Access Control Using Vehicle License Plate Authentication". Sensors 2020, 20 (12), 3578; doi:10.3390/s20123578.
[IF19-3.275 (**Q1**, Electrical and Electronic Engineering), IF5Y-3.427, SJR: 0.65,
SciVal Topic Prominence- 94.4, MDPI Views: 504, RG Reads: 72, RG Research Interest: 2.2 (higher than 50% of research items on ResearchGate), Scopus Citation Percentile: 78]

[J13] Altaf, F., **Islam, S.M.S.,** Akhtar, N. and Janjua, N.K. (2019) "Going Deep in Medical Image Analysis: Concepts, Methods, Challenges and Future Directions", IEEE Access, vol. 7, pp. 99540-99572, 2019. doi: 10.1109/ACCESS.2019.2929365.
[FWCI-3.2, IF18-4.098 (**Q1**, 23 in Computer Science, Information Systems), 5YIF-4.540, SJR: 0.6 (Q1-Computer Science)] [Citations: RG-17, Crossref-5, Scopus-4, ISI-3, Google-74, Mendeley Readers:151, IEEE Usage:1822, RG Research Interest: 28.4 (higher than 93% of research items on ResearchGate), RG Recommendation: 3, RG Reads: 1066]

[J12] Patel, A. **Islam, S.M.S.,** Goonewardene, M. and Murray, K. (2015) "Facial asymmetry assessment in adults using three-dimensional surface imaging", Progress in Orthodontics, 16 (36):1-9, Oct **2015**. Available at: http://www.progressinorthodontics.com/content/16/1/36
[IF20-2.75 (Q2), SJR: 0.95 (**Q1**-Orthodontics)]
[Citations: Google-43, ISI-22, Scopus-23]

[J11] **Islam, S.M.S**, Davies, R., Bennamoun, M, Owens, R.A. and Mian, A.S. (2013) "Multibiometric Human Recognition Using 3D Ear and Face Features," *Pattern Recognition,* Vol. 46 (3), pp. 613-627, March **2013**. https://doi.org/10.1016/j.patcog.2012.09.016
[IF20-7.74 (**Q1**, SJR: 1.49 (Q1- Artificial Intelligence), Citations: Google-50, ISI-18, Scopus-26; Usage-447, PlumX Captures-48]

[J10] **Islam, S.M.S.** and Bennamoun, M., Owens, R. and Davies, R. (2012) "A Review of Recent Advances in 3D Ear and Expression Invariant Face Biometrics", *ACM Computing Surveys,* Vol. 44 (3), pp. 14:1-34, June **2012**.
[IF20-10.282 (**Q1**, 4th /110 in Computer Science, Theory & Methods, was 1st in the year of publication-2012), 5YIF-9.227, SJR: 2.08 (Q1- Computer Science); Citations-Google-34, ISI-18, Scopus-22]

[J09] Al-Mouhamed, M.A., Nazeeruddin, M. and **Islam, S.M.S.** (2010) "Experimental Evaluation of Feedback Modalities of Five Telerobotic Tasks", *IEEE Trans. on Instrumentation and Measurements*, Vol. 59, No. 2, pp. 361-371, Feb **2010**.
[IF17-2.794 (No. 1 journal in the area of general Instrumentation and Measurement (I&M)); SJR19 1.03, **Q1** in EEE; Citations: Google-8, IEEE Xplore-4, ISI-4, Scopus-5]

[J08] **Islam, Syed M.S**, Davies, R., Bennamoun, M and Mian, A.S. (2011) "Efficient Detection and Recognition of 3D Ears", *International Journal of Computer Vision* (**IJCV**), Vol. 95 (1), pp. 52-73, Oct **2011**. https://doi.org/10.1007/s11263-011-0436-0
[IF17-11.541 top in 132 journals, IF20-7.41; SJR 1.78, **Q1** in Artificial Intelligence; Citations: Google-**98**, ISI-**51** Scopus-**62**,]

[J07] Tran, V.P., Al-Jumaily, A., **Islam, S.,** (2019), "Doppler Radar-Based Non-Contact Health Monitoring for Obstructive Sleep Apnea Diagnosis: A Comprehensive Review". Big Data Cogn. Comput., 3(1), 3, MDPI, DOI: 10.3390/bdcc3010003.

[SJR: 0.83(**Q1**- Management Information Systems)] [Citations: Google-64, Scopus-22, MDPI Downloads-3385, Views-2010]

[J06] Ahmed, M; Seraj, R; **Islam, SMS** (2020) "The k-means Algorithm: A Comprehensive Survey and Performance", Electronics, Vol. 9 (8), Aug, 2020; doi:10.3390/electronics9081295
[FWCI-5.82, IF21-2.690, SJR: 0.59 (**Q2**) (was Q1 in when the paper was submitted), ERA2018 listed, Citations: Google-**38**, ISI-10, Scopus-19](the most cited paper in the special issue/volume of the journal)

[J05] Cisonni, J.; Lucey, A.D..; King, A.J.C.; Islam, S.M.S.; Lewis, R. and Goonewardene, M.S. (2015) "Numerical Simulation of Pharyngeal Airflow Applied to Obstructive Sleep Apnea: Effect of the Nasal Cavity in Anatomically-accurate Airway Models", ***Medical & Biological Engineering & Computing,*** 53(11):1129-1139, Nov **2015**.
[IF20-3.079 (**Q2**), SJR: 0.59 (Q2-Biomedical Engineering), Citations-Google-25, Scopus-20, ISI-17]

[J04] Ponnusamy, A; Mian, A; Eastwood, P; Islam, SMS (2020) "Facial soft tissue norms in Caucasians using an innovative three-dimensional approach", Australian Orthodontic Journal 36(1):45-54, May 2020. DOI: https:/doi.org/10.21307/aoj-2020-006
[IF18-0.269 (Q3), IF5Y-0.462 (It was preferred for its professional impact)]

[J03] Tai, B., Goonewardene, M., Koong, B., Murray, K. and **Islam, S.M.S.** (2014) "The Reliability of Using Posteroanterior Cephalometry and Cone-beam CT to Determine Transverse Dimensions in Clinical Practice", Australian Orthodontic Journal 30(2):132-142, Nov **2014**.
[IF18-0.269 (Q3), IF5Y-0.462 (It was preferred for its professional impact), Citations: Google-18, Scopus-6, ISI-9]

[J02] Cheung, G., Goonewardene, M., **Islam, SMS** and Murray, K. (2013) "The Validity of Transverse Intermaxillary Analysis on Traditional PA Cephalometry Compared to Cone-beam Computed Txomography", Australian Orthodontic Journal, 29(1):116-125, May **2013**.
[IF18-0.269 (Q3), IF5Y-0.462 (It was preferred for its professional impact), Citations-Google-14, Scopus-6, ISI-8]

[J01] **Islam, S.M.S.**, Sqalli, M.S. and Khan, S. (2006) "Modeling and Formal Verification of DHCP Using SPIN", *International Journal of Computer Science and Applications (IJCSA),* Vol. 3 (6), pp.145-159, Jun **2006**. [Q4, SJR: 0.13, Citations: Google-33]

♦ *Manuscripts Under Review*
[MR08] Masoudi, M.; Golzarian, M.R.; Lawson, S.S.; Rahimi, M.; **Islam, S.M.S**., "Predicting and Validating Properties of Smart Systems of Systems Architecture Models through Simulations with Markovian Semantics", Computers and Electronics in Agriculture. [Q1, IF- 8.3, SJR-1.59]

[MR07] Mohsin, A; Janjua, N; **Islam SMS**; Masek, M, Janicke, H and Sarker, IH, "Predicting and Validating Properties of Smart Systems of Systems Architecture Models through Simulations with Markovian Semantics", Computer Standards & Interfaces. [Q1, IF23- 3.721, SJR-1.2]

[MR06] Mahmood, H., Iqbal, A., Islam, SMS, Akhtar, N. "NeDev: Zero-Shot Domain Adaptation with Neural Deviation Fields", Nature Machine Intelligence. [IF- 22.5 (Q1), SJR 6.21(Q1)]

[MR05] Shaikh, M.B., Chai, D., **Islam, S.M.S.** and Akhtar, N. "From CNNs to Transformers in Multimodal Human Action Recognition: A Survey", ACM Transactions on Multimedia Computing Communications and Applications (second review) [IF- 4.09 (Q1), SJR 1.27(Q1)]

[MR03] Xia, Y.; Li, X; **Islam, SMS;** Baten, A. Tan, X. and Wang, W., "Can we predict the dynamic characteristics of immunoglobulin G (IgG) N-glycome?", Science Advances. [IF-13.6 (Q1)]

[MR02] Xia, Y.; **Islam, SMS;** Li, X; Baten, A. Tan, X. and Wang, W., "gtAge - an aging clock constructed of integrated IgG N-glycome and blood transcriptome". Engineering. [IF-12.8 (Q1)]

[MR01] Bataineh, AA; Jalali, SMJ; Mousavirad, SJ; Yazdani, A; **Islam, SMS** and Khosravi, A, "An efficient Hybrid Extreme Learning Machine and Evolutionary Framework with Applications for Medical Diagnosis". Expert Systems with Applications, Elsevier. [IF-8.665(Q1)] (second review)

♦ *Edited Books*
[EB02] Pandian A.P., Fernando, X and **Islam S.M.S.** (Eds.) (2021) "Computer Networks, Big Data and IoT (Proceedings of ICCBI 2020)". Part of the Lecture Notes on Data Engineering and Communications Technologies book series (LNDECT, volume 66), Springer Singapore, DOI 10.1007/978-981-16-0965-7 [Springer citations: 129, Springer Downloads: 82K]

[EB01] Pandian A.P., Senjyu T., **Islam S.M.S.** and Wang H. (Eds.) (2020) "Proceeding of the International Conference on Computer Networks, Big Data and IoT (ICCBI - 2018)". Part of the Lecture Notes on Data Engineering and Communications Technologies book series (LNDECT, volume 31), Springer, Cham, DOI https://doi.org/10.1007/978-3-030-24643-3
[Springer citations: 174, Springer Downloads: 177K]

♦ *Book Chapters*
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[C47] Shaikh, M.B., Chai, D., **Islam, S.M.S.** and Akhtar, N. (2023) "MAiVAR-T: Multimodal Audio-image and Video Action Recognitzer using Transformers", Proc. the 11th European Workshop on Visual Information Processing (EUVIP 2023), Gjøvik, Norway, Sept 11-14, 2023.

[C46] Mahmood, H., Iqbal, A., **Islam, S.M.S.**, Shah, S.A.A. (2023) "3D brain registration with intensity shift robustness". In Proc. 2023 IEEE International Conference on Image Processing (ICIP), Kuala Lumpur, Malaysia, pp. 2805-2809, doi: 10.1109/ICIP49359.2023.10222341. [CORE B, SCImago H-index 108].

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[C41] Noman, MK, **Islam, SMS**, Abu-Khalaf, J, and Lavery, P (2021) "Seagrass Detection from Underwater Digital Images using Faster R-CNN with NASNet", 2021 Digital Image Computing: Techniques and Applications (DICTA), 2021, pp. 1-6, doi: 10.1109/DICTA52665.2021.9647325.

[C40] Mahmood, H., **Islam, SMS,** Hill, J., Tay, G. (2021) "Rapid segmentation of thoracic organs using U-net architecture". 2021 Digital Image Computing: Techniques and Applications (DICTA), 2021, pp. 01-06, doi: 10.1109/DICTA52665.2021.9647312.

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[C36] Jalali, SMJ; Khodayar, M; Ahmadian, S; Shafie-Khah, M; Khosravi, A; **Islam, SMS**; Nahavandi, S and Catalão, JPS (2021) "A New Ensemble Reinforcement Learning Strategy for Solar Irradiance Forecasting using Deep Optimized Convolutional Neural Network Models," 2021 International Conference on Smart Energy Systems and Technologies (SEST), 2021, pp. 1-6, doi: 10.1109/SEST50973.2021.9543462. [**FWCI=9.23**]

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[C22] Moniruzzaman, M., **Islam, S.M.S.**, (2017) "Automatic Ear Detection from Ear and Non-Ear Environment using Deep Machine Learning Technique". In Proc. of International Conference on Machine Learning and Data Engineering (iCMLDE 2017), pp 108-114, Dec, 2017, Sydney, Australia.

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[FWCI-11.45, SciVal TPP:99.99, Core Rank-B; Downloads 2600 (**the most downloaded chapter in the book**), Mentions-2, Usage-26; Citations: Google-95, ISI-34, Scopus-49 (99th percentile), Springer-18, RG Interest of 36.4 which is higher than 95% items in RG]

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[C17] **Islam, SMS**, Goonewardene, M. and Farella, M. (2014) "A Review on Three Dimensional Facial Averaging for the Assessment of Orthodontic Disorders", Innovations and Advances in Computing, Informatics, Systems Sciences, Networking and Engineering, Lecture Notes in Electrical Engineering, Springer International Publishing Switzerland, Vol. 313, pp. 391-397, Oct 2014. Presented in the International Conference on Systems, Computing Sciences and Software Engineering (SCSS 12), Dec 7-9, 2012, USA
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 [ERA rank- B; Citations: Google-8, ISI-5, Scopus-5]

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[C09] **Islam, S.M.S.,** Bennamoun, M., and Davies, R. (2008) "Fast and Fully Automatic Ear Detection Using Cascaded AdaBoost". *In Proc. of IEEE Workshop on Application of Computer Vision, 2008 (WACV'08),* USA, pp. 205-210, Jan 7-8, 2008.
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[C07] **Islam, S.M.S.**, Al-Mouhamed, M.A., Buhari, S.M. and Al-Kharobi, T., (2006) "A Hierarchical Design Scheme for Application of Augmented Reality in a Telerobotic Stereo-Vision System," *In Proc. of the Saudi 18th National Computer Conference (NCC18)*, Riyadh, Saudi Arabia, pp-399-411, Mar 26-29, 2006. [Citations: Google-0, Reads-41]

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♦ *Extract of Papers Published in Non-refereed Proceedings*
[CE09] **Islam, S.M.S.**, Goonewardene, M., Bennamoun, M, Abduo, J., Smith, A. and Lucey, A, "Three-Dimensional Image-guided Treatment Planning for Maxillo-Mandibular Advancement Surgery", Proc. of the 2nd Meeting of the International Association for Dental Research – Asia Pacific Region, Bangkok, Thailand, Aug 21-23, 2013.

[CE08] **Islam, S.M.S.**, Goonewardene, M.and Sillifant, P., "A hierarchical approach for screening Obstructive Sleep Apnoea using three dimensional imaging", Australian Society of Orthodontists Foundation Meeting, Canberra, Australia, March 15-17, 2013.

[CE07] Patel, A. **Islam, S.M.S.,** Goonewardene, M and Murray, K, "The assessment of facial asymmetry in adults using three-dimensional facial scanning", Australian Society of Orthodontists Foundation Meeting, Canberra, Australia, March 15-17, 2013.

[CE06] Cheung, G., Goonewardene, M., **Islam, SMS** and Murray, K. "The Validity of Landmark and Reference Point Measurements in Traditional PA Cephalometry Compared to Cone-Beam Computed Tomography", Australian Society of Orthodontists Foundation Meeting, Canberra, Australia, March 15-17, 2013.

[CE05] **Islam, S.M.S.** and Goonewardene, M. "Three-Dimensional Modelling for the Planning of OSA Treatment using Maxillomandibular Advancement Surgery", Upper airway symposium, Bunker Bay, Margaret River, Western Australia, Feb 20-22, 2013.

[CE04] **Islam, S.M.S.**, Goonewardene, M., Bennamoun, M, Abduo, J., Smith, A. and Lucey, A, "Visualizing the Predicted Outcome of Maxillomandibular Advancement Surgery in the Treatment Planning for Obstructive Sleep Apnoea". Australian Visualization Conference OzViz 2012, Perth, Dec 6-7, 2012.

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*[CE01] **Islam, S.M.S.,** Bennamoun, M., Owens, R. and Davies, R., "Biometric Approaches of 2D-3D Ear and Face: A Survey", *In Proc. of the 15th University of Western Australia School of Computer Science & Software Engineering Research Conference*, Yanchep, Western Australia, Jun 2007.

♦ *Technical Reports*

[TR01] **Islam, S.M.S.,** Tan, T., West, G. and Hoefs, S. (2015) "Combining panoramic and directional imagery of multiple low observable maritime objects observed from a moving platform", Technical Report, ***Defence Science and Technology Organization,*** May, 2015.

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[T04] Islam, S.M.S., "Human Recognition Using Local 3D Ear and Face Features", PhD Thesis, The University of Western Australia, Sep 2010. [406 downloads-UWA Res. Repo.; 605 views-Academia]

[T03] Islam, S.M.S., "Design of a Graphical User Interface to Augment a Telerobotic Stereo- vision System". MSc thesis, King Fahd University of Petroleum and Minerals, Dec 2005.

[T02] **Islam, S.M.S.**, "A Comparative Analysis of the Effect of Using Various Teaching Aids and Developing a Computerized Teachers Evaluation System", PGDTE Thesis, Islamic University of Technology, Nov 2002.

[T01] Islam, M.A., **Islam, S.M.S.**, Raihan, Z. and Hoque, M.N. "Design and Implementation of Result Processing System of IIT (RPS)", B.Sc. Engineering (Hons) Thesis, Islamic Institute of Technology, Nov 2000.

♦ *Other Publications*

arXiv
[JO04] Shaikh, M.B., Chai, D., **Islam, S.M.S.** and Akhtar, N. (2022) "MAiVAR: Multimodal Audio-Image and Video Action Recognizer", arXiv preprint arXiv:2209.04780
[JO03] Truong, G., Le, H., Parra, A., Gilani, S.Z., **Islam, S.M.S.** and Suter, D., "Fast Semantic-Assisted Outlier Removal for Large-scale Point Cloud Registration", arXiv preprint arXiv:2202.10579
[JO02] Mursalin, M, **Islam, S.M.S.**, Noman, K. and Al-Jumaily, A.A., "Epileptic seizure classification using statistical sampling and a novel feature selection algorithm", arXiv preprint arXiv:1902.09962
[JO01] Moniruzzaman M., Islam S.M.S., Bennamoun M., Lam, P and Lavery P., "Imaging and Classification Techniques for Seagrass Mapping and Monitoring: A Comprehensive Survey", arXiv preprint arXiv:1902.11114

♦ *Research Datasets*

[RD03] Shaikh, M.B., Chai, D., Islam, S.M.S. and Akhtar, N. "MHAiR: A dataset of Audio-image Representations for Multimodal Human Actions", Data, MDPI [IF- 2.6 (Q2)]
[RD02] MD Moniruzzaman, SMS Islam, P Lavery, [ECUHO1 (Edith Cowan University Halophila Ovalis 1)](#), 2019, DOI: 10.25958/5dd7566dfaabb
[RD01] MD Moniruzzaman, SMS Islam, P Lavery, [ECUHO2 (Edith Cowan University Halophila Ovalis 1)](#), 2019, DOI: 10.25958/5dd7566dfaabb

♦ *Manuscripts to be Submitted*

[JS03] Mostofa, KZ; Imran, S; Islam, MA; Khurshid, ZM; Nur-E-Alam, M and Islam, SMS (2023), "A Concept to Framing IoT-Enabled Enhanced Intensive Care Unit and Remote Patient Monitoring System with Machine Learning Integration".

[JS02] Masoudi, M., Golzarian, M., Lwson, S., Rahimi, M., Khodabakhshian, R. and lslam, SMS, "Modification of structure from motion (SFM) method for 3D reconstruction of tomato: Appearance characteristics measuring approach".

[JS01] Moniruzzaman, M.; **Islam, S.M.S.**; Bennamoun, M.; Lavery, P. and Awrongjeb, M. "Remote Sensing for Seagrass Detection and Mapping: A Comprehensive Survey".

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I have secured a total of approximately **$3.808M** in research funding from 35 different grants including $3.589M external funding from NHMRC (Ideas grant 2019), The Ian Potter Foundation, Western Australian Marine Science Institution (WAMSI), Defence Science and Technology, Australian Society of Orthodontists Foundation for Research and Education (ASOFRE), HEC Pakistan and two local industries.

♦ *External*

1. ***The Ian Potter Foundation Grant, 2023-2028 ($1,357,000),*** Mitchell, N., Hopper, S., Skrzypek, G., Catullo, R., Lullfitz, A., McCallum, J., Dortch, J., Knapp, L., Webb, W., Horwitz, P., Blake, D., **Islam, S.**, Edmonds, D., Miller, B., Liddelow, J., McGrath, G., Densmore, V., Harvey, M., Tatarnic, N. & Durrant, B., *PEAT- Protecting peatland ecosystems and addressing threats in Southwestern Australia.*

2. ***National Health and Medical Research Council, Ideas grants, 2020 – 2022 ($652,128),*** Josh Lewis, David Suter, John Schousboe, Timothy Cootes, Richard Prince, Pawel Szulic, Nicolas Harvey, Douglas Keil, **Syed Islam***, Automated methods for evaluating structural vascular disease ($467,980 from NHMRC)*

3. ***Mardie Project Marine and Intertidal Research Offsets Program, Western Australian Marine Science Institution (WAMSI) 2023-2025 ($700,000),*** Hicky, S., O'Leary, M., Lovelock, C., Fearns, P., Reef, R. and **Islam, S.**, *Mapping of the original and current extent of samphire and cyanobacterial mat on the west Pilbara Coast*

4. ***WA Near-miss Awards: Ideas Grants 2022-23*** **($100,000)***,* Jumana Abu-Khalaf, Martin Masek, Ashu Gupta, David Suter, Hannah Seymour, Chris Jones, John Burrage, **Syed Islam**, Delia Hendrie, Johnny Lo, *Determination of bone mineral density from a hand radiograph: Facilitating early identification of osteoporosis*

5. ***Research Translation Projects 2022-2024 ($269,836), Department of Health, Govt of WA,*** Ashu Gupta, Daren Gibson, Susan-Mary O'Hanlon, Laurens Manning, Emma Hamilton, Jens Ritter, David Suter, Janardhan Vignarajan, Prof Delia Hendrie, Fiona Wood, Martin Masek, Sajib Saha, Jonathan Hiew, Chloe Goodred, Graeme McLeod, Aaron Berghube, **Syed Islam**, and Jumana Abu-khalaf*, Better and faster than the human eye: artificial intelligence and computational radiomics for foot x-rays in patients with diabetes-related foot infections*

6. ***APR Intern with Singular Health, Jan 25-Jun 25, 2021 ($20,500),*** Md Mursalin, Syed Islam *MedVR: automating image acquisition, transportation and mapping for surgical planning****.***

7. ***APR Intern with Singular Health, Jan 25-Jun 25, 2021 ($20,500),*** Hassan Mahmood, Syed Islam *MedVR: automating image acquisition, transportation and mapping for surgical planning****.***

8. ***Industry Engagement Scholarship to support PhD projects, 2019-2023 ($35,000), Defence Science and Technology (DST), Department of Defence Science and Technology,*** Alex Rassau, Douglas Chai, Syed Islam, *Enhanced Tele-operation for improved control of Autonomous Field Robots in Challenging Environments*

9. ***Industry Engagement Scholarship to support PhD projects 2019-2024 ($64,740***), ***CingleVue Pty Ltd***, Suter, D and Islam, SMS, *Developing an emotional and cognitive alert system for Educators,*

10. ***The Higher Education Commission, Government of the Islamic Republic of Pakistan, HEC Scholarship, 2019–2022 ($152,000), Digitization, Access and Preservation of Cultural Heritage Artifacts***

11. ***The Higher Education Commission, Government of the Islamic Republic of Pakistan / HEC Scholarship, 2018 – 2022 ($76,000),*** Syed Islam and Douglas Chai. *Forensic Examination of Document Image Analysis.*

12. ***The Higher Education Commission, Government of the Islamic Republic of Pakistan, HEC Scholarship, 2018–2021 ($76,000), Real-Time face detection and recognition for low resolution surveillance videos.***

13. ***ASOFRE Special Donation Grant 2014 (*$25,000),** Mithran Goonewardene and Syed Islam, *Construction of Patient-Specific Three Dimensional Facial Soft-tissue Models for Facial Deformity Analysis.*

14. ***ASOFRE Special Donation Grant 2012 (*$29,517),** Mithran Goonewardene and Syed Islam, *Three-Dimensional Analysis of the Impact of Skeletal Jaw Base Relationship on Airway Size and Volume.*

15. ***ASOFRE Special Donation Grant 2011*($28,317),** Mithran Goonewardene, Syed Islam and Mohammed Bennamoun, *Identification and Quantification of Facial Asymmetry to Facilitate*

Orthodontic Diagnosis and Treatment Planning using Three-dimensional Computer Vision and Virtual Reality Tools.

16. ***ECU Industry Engagement Grant 2019-2020*** (**$87,664),** Dermody G., Janjua J. and **Islam SMS**, *The Implementation of Health-Assistive Smart Home Technology in Independently-Dwelling Older Adults. Industry partner: **Bethanie**.*

♦ *Internal*

1. ***School of Science Travel Grant 2023 ($3000), Syed Islam,*** *for attending 11th European Workshop on Visual Information Processing (EUVIP 2023), Gjøvik, Norway.*

2. ***School of Science Travel Grant 2023 ($1300), Syed Islam,*** *for attending Digital Image Computing: Techniques and Applications (DICTA) 2023, Port Macquarie, NSW, Australia.*

3. ***ECU School of Science Research Support Scheme, 2023*** (**$4,942), Syed Islam**, f*or publications, external grants and HDR completion.*

4. ***ECU School of Science Strategic Initiative Fund, 2017*** (**$115,368), Islam et al.**, *Establishing a 3D sensing, visualisation and analytics lab.*

5. ***Pawsey Small Grants Program, 2021*** (**$21,600), Syed Islam**, *Professional development and upgrading existing GPU facilities.*

6. ***ECU School of Science Research Support Scheme, 2022*** (**$1613), Syed Islam**, *For publications, external grants and HDR completion.*

7. ***ECU School of Science Research incentive Scheme, 2021*** (**$1745), Syed Islam**, *For publications, external grants and HDR completion.*

8. ***ECU Teaching and Learning Grants 2019 ($2000),*** Islam SMS*, Enhancement and evaluation of 3dTel, a next generation technology enhanced learning tool for Biological Sciences (Teaching related)*

9. ***ECU School of Nursing and Midwifery Research Support Scheme Grant Scheme 2019*** ($77,787)**,** Dana Dermody, Naeem Janjua, Syed Islam, *The Implementation of Health-Assistive Smart Home Technology in Independently-Dwelling Older Adults*

10. ***ECU- Early Career Researcher Grant 2017*** (**$30,000),** Syed Islam, *Deep learning of 3D craniofacial features for the prediction of obstructive sleep apnoea.*

11. ***ECU Strategic Research Fund 2019*** ($25,099)**,** David Suter, Syed Islam, Selam Ahderom, *96GB GPU BOX*

12. ***ECU Collaboration Enhancement Scheme 2016 (Round 2)*** (**$8,915),** Syed Islam, *A novel multi-sensor based non-contact approach for screening obstructive sleep apnoea.*

13. ***ECU School of Science Collaborative Research Grant Scheme 2019*** ($**7,500),** Syed Islam, *Deep learning for automation in livestock and meat processing industry.*

14. ***UWA Research Development Award 2012*** (**$26,233),** Syed Islam, 2012, *Computer Aided Diagnosis and Treatment Planning of Dentofacial Deformities Using 3D Data and Graphical Models.*

15. ***Healy Research Collaboration Awards 2013*** **($10,000),** Syed Islam, *Three-dimensional modelling and analysis of soft-tissue and hard-tissue facial features for Craniofacial Surgery.* [with The University of North Carolina at Chapel Hill , USA]

16. ***UWA Research Collaboration Award 2011* ($10,000),** Syed Islam, Mohammed Bennamoun, Mithran Goonewardene, Andrew Smith, Mauro Farella (University of Otago), David Hillman, Arti Patel and Marc Ackermann (Harvard School of Dental Medicine), *Computer Aided Integrated Maxillofacial Surgery for Patients with Obstructive Sleep Apnoea.*

17. ***ECU School of Science Staff Conference Grant Scheme 2019 ($1,000***), *Mohiuddin Ahmed and Syed Islam, to attend and present paper at DICTA 2019.*

18. ***ECU School of Science Staff Conference Grant Scheme 2018*** (**$1,000),** Syed Islam, to attend and present paper at DICTA 2018.

19. ***ECU School of Science Staff Conference Grant Scheme 2017 ($2,700)*** Syed Islam, to attend ACIVS2017.

♦ *Pending*

1. ***National Health and Medical Research Council (NHMRC) Ideas Grant* ($1,115,506***)*, Jumana Abu-Khalaf, Martin Masek, Ashu Gupta, David Suter, Hannah Seymour, Chris Jones, John Burrage, **Syed Islam**, Delia Hendrie, Johnny Lo, *Determination of bone mineral density from a hand radiograph: facilitating early screening for osteoporosis*

2. ***Collaborative Research Grant, Defence Science Centre, Department of Jobs, Tourism, Science and Innovation* ($150,000***)*, Alex Rassau, Douglas Chai, **Syed Islam,** *Teleoperation Enhancement Using Future Video Frame Prediction for Improved Control of Remote Operated Unmanned Vehicles in High Latency Environments.*

3. ***Drought Resilient Farming Practices program, Future Drought Fund, Department of Agriculture, Fisheries and Forestry, Australian Government*** *($8,015,234) <external CIs>, Dave Blake, Eddie VAN Etten and **Syed Islam**, Sustainably increasing the productivity of the North West pastoral herd*

RESEARCH SUPERVISION

♦ *Completed HDR (Doctoral-8, Masters-2):*
- **Principal Supervisor**
1. Fouzia Altaf (July 2018- **Oct 2022**), PhD, School of Science, Edith Cowan University.
   Thesis: "Deep Learning Augmentation for Medical Image Analysis"
2. Hassan Mahmood (July 2018- **Dec 2022**), PhD, School of Science, Edith Cowan University.
   Thesis: "Domain Shift Robustness in Deep Learning Models"

3. Yao Xao (June 2019- **Dec 2022**), PhD, School of Science, Edith Cowan University.
   Thesis: "Feature selection for multi-omics data using multi-agent reinforcement learning"
4. Kislu Noman (Nov, 2019**- Dec, 2022**), PhD, School of Science, Edith Cowan University.
   Thesis: "Deep Learning-based Image Classification and Detection with Seagrass Data"
5. MD Moniruzzaman (Feb 2017- **Oct 2019**), **MSc**, School of Science, ECU
   Thesis: "Seagrass Detection Using Deep Learning"

- **Co-Principal Supervisor**
6. Muhammad Bilal Shaikh (Dec 2018-Thesis submitted on Aug 31, 2023), PhD, School of Engineering, ECU
   Thesis: "Action Recognition through Multi-Modal Fusion using Deep Learning"
7. Angelina Ross (Feb 2011-**Oct 2012**), Doctor of Clinical Dentistry (DClinDent), School of Dentistry, UWA
   Thesis: "An assessment of facial profile attractiveness of historical and contemporary norms as perceived by clinicians, patients and laypeople".
8. Arti Patel (Feb 2011-**Oct 2012**), DClinDent, School of Dentistry, UWA
   Thesis: "The use of three-dimensional scanning to assess and quantify the extent of facial asymmetry in adults".

- **Associate Supervisor**
9. MD Moniruzzaman (**Dec 16, 2019- Dec 16, 2022**), PhD, School of Engineering, Edith Cowan University.
   Thesis: "Enhanced Teleoperation for Improved Control of Autonomous Field Robots through Future Video Frame Prediction"
10. Ahmad Mohsin (Dec 2017-Oct 2021), PhD, School of Science, Edith Cowan University (Thesis graded passed with minor revisions)
    Thesis: "A framework to support modelling of software architecture for system of systems"
11. Chau Nguyen Duc Minh (Feb 2019- July 15, 2021), **MSc**, School of Science, Edith Cowan University. (Thesis graded passed with minor revisions)
    Thesis: "Affordance Learning from Visual-Semantic based Perception with Deep Learning"

♦ *Continuing HDR (PhD-3, MSc-1)*
- **Principal Supervisor**
1. Muhammad Zia Ur Rehman (Feb 2023 - Contd.), PhD, School of Science, ECU.
   Thesis area: "Remote sensing image analysis using Deep Learning"

- **Associate Supervisor**
2. Nima MIRNATEGHI (May 1, 2022- Contd.), PhD, School of Science, ECU
   Thesis area: "Towards AI Explainability: Unraveling Black-Box Models"
3. Liyana Mudiyanselage Nipuna Dinendra WIJAYATHUNGA (Jun 26, 2023-Contd.), PhD, School of Engineering, Edith Cowan University.
   Thesis: "Multi-Modal Scene Understanding for Mobile Robot Navigation in Unstructured"
4. Mehraan Chowdhury (Aug 21, 2023-Contd.), MSc by Research, Department of Computer Science and Software Engineering, School of Phys, Math & Comp (Comp), UWA
   Thesis: "Estimation of Apnoea-Hypopnea Index Using Self-Supervised Learning and Multi-Modal Transfer Learning On 3D Point Clouds of Craniofacial Scans".

◆ *Completed Honours*
1. Gordon Cheung (Jul 2011-**Jan 2013**), BSc Honours in Dentistry (BScHonsDent), School of Dentistry, UWA
   Thesis: "A study on the applications of Cone Beam Computed Tomography and Conventional Posterior Anterior Cephalometry for use in Orthodontics".
2. Richard Lee (Apr 2012-**Nov 2013**), BScHonsDent, School of Dentistry, UWA
   Thesis: "The impact of skeletal pattern on airway volume and dimension". (Thesis graded 'Excellent' in all sections)
3. Fabiana Petrykowski, (Feb 2012-**Dec 2014**), BScHonsDent, School of Dentistry, UWA
   Thesis: "Airway morphology and its influence on OSA severity and treatment planning".
4. Vivien Lum (2014-**Dec 2015**), BScHonsDent, School of Dentistry, UWA
   Thesis: "Measurement of facial angles and its relationship to facial convexity/concavity".

CONFERENCE PRESENTATIONS (SELECTED)

◆ *International Conferences*
1. "AI-enabled Diagnosis and Treatment Planning in the Era of Deep Learning" (**Keynote Speech**), International Conference on Medical Education & Research (ICMER) 2023, Lahore, Pakistan, Sept 19, 2023.
2. "MAiVAR-T: Multimodal Audio-image and Video Action Recognitzer using Transformers", The 11th European Workshop on Visual Information Processing (EUVIP 2023), Gjøvik, Norway, Sept 11-14, 2023.
3. "Workshop on Deep Learning for Medical Image Analysis", DICTA2021, Nov 28, 2021.
4. "Evaluation of Different Features and Classifiers for Classification of Rays from Underwater Digital Images". 2018 International Conference on Machine Learning and Data Engineering (iCMLDE), IEEE, Dec 3-7, 2018, Sydney, Australia. [Oral]
5. "Deep Learning on Underwater Marine Object Detection: A Survey", Advanced Concepts for Intelligent Vision Systems (ACIVS), Sept 18-21, 2017, Antwerp, Belgium. [Poster]
6. "Automatic Ear Detection from Ear and Non-Ear Environment using Deep Machine Learning Technique", Proc. Of International Conference on Machine Learning and Data Engineering (iCMLDE 2017), Dec, 2017, Sydney, Australia. [Oral]
7. "A Fast and Fully Automatic Ear Recognition Approach Based on 3D Local Surface Features Advanced Concepts for Intelligent Vision Systems (ACIVS), Oct 20-24, 2008, Juan-les-Pins, France.
8. "Efficient Detection and Recognition of 3D Ears", Doctoral Symposium at the IEEE 5th Int'l Conference on Biometrics: Theory, Applications and Systems (BTAS), Sept 23-26, 2012, Washington DC, USA. [Poster]
9. "Evaluation of Real-time Delays for Networked Telerobotics", The 3rd Int'l IEEE Conference on Industrial Informatics (INDIN), Aug 10-12, 2005, Perth, Australia.
10. "A Three-Dimensional Imaging-based Framework for Planning Maxillomandibular Advancement Surgery for the Treatment of Obstructive Sleep Apnoea", The 4th World Congress on Software Engineering (WCSE), Dec 3-4, 2013, Hong Kong, China [Oral]
11. "Three Dimensional Imaging Based Diagnosis for Obstructive Sleep Apnoea: A Conceptual Framework", New trends of computational intelligence in health applications Workshop (CI-Health 2012) held in conjunction with the 25th Australasian Joint Conference on Artificial

Intelligence (AI 2012), Dec 4, 2012, Sydney, Australia [Oral]

12. "Three-Dimensional Image-guided Treatment Planning for Maxillo-Mandibular Advancement Surgery", The 2nd Meeting of the Int'l Association for Dental Research – Asia Pacific Region, Aug 21-23, 2013, Bangkok, Thailand. [Oral]

13. "Visualizing the Predicted Outcome of Maxillomandibular Advancement Surgery in the Treatment Planning for Obstructive Sleep Apnoea", Australian Visualization Conference OzViz 2012, Perth, Dec 6-7, 2012. [Oral, a premier annual workshop for visualisation across Australia and New Zealand]

♦ *National Conferences*

14. "The assessment of facial asymmetry in adults using three-dimensional facial scanning", Australian Society of Orthodontists Foundation Meeting, 2015, Hobart, Australia. [Oral]

15. "Three-Dimensional Modelling for the Planning of OSA Treatment using Maxillomandibular Advancement Surgery", Upper airway symposium, Bunker Bay, Margaret River, Western Australia, Feb 20-22, 2013. [Oral]

16. "Expression-Robust Human Recognition from Local 3D Ear and Face Features", The Tenth Electrical Engineering and Computing Symposium (PEECS'09), Edith Cowan University, Perth, Western Australia, Oct. 2009. [Oral]

17. "A Hierarchical Design Scheme for Application of Augmented Reality in a Telerobotic Stereo-Vision System", The Saudi 18th National Computer Conference (NCC18), Riyadh, Saudi Arabia, March 26-29, 2006 [Oral]

♦ *Local Conferences*

18. "Development and evaluation 3dTel: A Web-based 3D visualisation tool for enhancing learning", WA Teaching and Learning Forum 2020, The West Australian Network for Dissemination (WAND), ECU, Jan 31, 2020. [Oral, *Teaching*]

19. "3dTEL: A web-based 3D visualisation tool for enhancing learning", ECUlture 2019, Centre for Learning and Teaching, ECU, Nov 4, 2019. [Oral, *Teaching]*

20. "Argumentation: A tool for critical thinking and reflective writing for HDR students", ECUlture 2019, Centre for Learning and Teaching, ECU, Nov 4, 2019. [Oral, along with Dr Naeem Janjua, *Teaching*]

21. "Computer Aided Diagnosis and Treatment Planning for Orthodontic and Associated Disorders", Research Day Conference, School of Dentistry, University of Western Australia, Nov 22, 2012; [Oral]

22. "Using 3D Local Surface Information for Fast Ear Recognition", School of Computer Science & Software Engineering (CSSE) Research Conference, Yanchep, Western Australia, June 2008.

23. "An Improved Approach for Local 3D Feature Matching for Ear Recognition", The 17th UWA School of CSSE Research Conference, Yanchep, Western Australia, 2009 [Oral]

24. "Biometric Approaches of 2D-3D Ear and Face: A Survey", UWA School of (CSSE) Research Conference, Yanchep, Western Australia, June 2007 [Oral].

SEMINER/SYMPOSIUM TALKS

I have given talks in a total of *26 seminars* including the following prominent ones:

♦ *Overseas:*

1. "Artificial Intelligence Based Natural and Medical Image Processing for Efficient Pattern Recognition", Institute of Information Technology, Dhaka University, Bangladesh, Oct 5,

2023 (Invited Keynote Speech)
2. "AI-assisted Medical Image Analysis for Rapid Diagnosis and Treatment Planning", Islamic University, Kushtia, Bangladesh, Oct 3, 2023 (Invited Keynote Speech)
3. "Computer Vision Based Automation for Climate Protection, Medical Diagnosis and Defence", Institute of Robotics and Automation (IRAB), BUET, Bangladesh, Oct 2, 2023 (Invited Keynote Speech)
4. "Risk of COVID19 on COPD and Its Prediction Using Signal Processing Techniques", Signal Processing Research and Innovation Conclave: Exploring Challenges, Opportunities and Solutions in research of COVID19", Dhaka-Bangladesh. Organised jointly by IEEE Signal Processing Society (SPS) Bangladesh Chapter and IEEE Bangladesh Section as a co-located event at International COVID Congress (ICC) 2020, Aug 9-10, 2020. (**Invited Speech**)
5. imec-Vision Lab, Department of Physics, University of Antwerp (CDE), Antwerp, Belgium, Sept 22, 2017.
6. Department of Artificial Intelligence, Faculty of Computer Science and Information Technology, University of Malay, Nov 15, 2017.
7. Department of Computer Science and Engineering, Bangladesh University of Engineering and Technology (BUET), Bangladesh, Nov 12, 2017.
8. Department of Computer and Information Science, Daffodil International University, Bangladesh, Nov 13, 2017.
9. Department of Orthodontics, University of North Carolina at Chapel Hill, USA, Sept 26, 2012.
10. Department of Orthodontics, University of Otago, Dunedin, New Zealand, Sept 11, 2012.
11. IUT Career and Business Society, Islamic University of Technology (IUT), Dhaka, Bangladesh, Jan 13, 2020.
12. Department of Electrical and Electronic Engineering, Ahsanullah University of Science and Technology, Dhaka, Bangladesh, Jan 9, 2020.
13. Department of Software Engineering, Daffodil International University, Dhaka, Bangladesh, Jan 9, 2020.
14. Dept. of Electrical and Electronic Engineering. IUT, Dhaka-Bangladesh, Oct 15, 2011.
15. Asian University of Bangladesh, Dhaka-Bangladesh, Oct 16, 2011 and Oct. 10, 2008.

♦ *Inter-state:*
1. School of Biomedical Engineering, University of Technology Sydney, NSW. Nov 28, 2017. Title: "Computer Vision in Biometric, Marine and Medical Applications".
2. ANU College of Engineering and Computer Science / CSIRO Mathematics, Informatics & Statistics, Canberra, ACT, Feb. 22, 2011. Title "Fast and Robust Human Recognition Using 2D and 3D Ear and Face Images". (invited)

♦ *Local:*
1. "Artificial Intelligence in natural and medical image processing", The Early and Mid-Career Research Network (EMCRN) Symposium, ECU, Nov 5, 2021. [Oral, *Invited*]
2. *Symposium on Artificial Intelligence*, School of Science, ECU, Sep 18, 2017
3. "Computational Biomechanics for Diagnosis and Treatment Planning of Obstructive Sleep Apnoea", Master Class Seminar, Institute of Advanced Studies, UWA, 14 May 2012.

AWARDS AND RECOGNITION

◆ *Research Excellence*

o "***High Achieving Researcher Award***" for attracting substantial and consistent external research funding over 2018-2020, Edith Cowan University (Sept 2021). Value: $2500.

o ***Best Paper Award, IVCNZ 2022*** for the paper titled *"Pre-text Representation Transfer for Deep Learning with Limited and Imbalanced Data: Application to CT-Based COVID-19 Detection"*

o ***Travel Award, Business Events Perth, 2023 ($2000),*** *Travel to Malaysia to attend ICIP 2023 conference.*

o ***Finance Support, Business Events Perth, 2023 ($8505),*** *for hosting DICTA 2024 conference in WA.*

o ***Best Paper Runner-Up Award on Machine Learning for Medical Image Analysis,*** *DICTA 2021 (Co-authored).*

o ***DST Best Contribution to Science Award 2019,*** *DICTA 2019 (Co-authored).*

o ***Best Student Paper Award***, International Conference on Machine Learning and Data Engineering (iCMLDE 2018), Dec, 2018, Sydney, Australia *(Co-authored).*

o *Nomination for* ***the Vice-Chancellor's Staff Excellence Awards in Excellence in Graduate Research Supervision,*** Edith Cowan University (2021 and 2022).

o ***2011 UWA Early Career Postdoc Special Commendation Award for Publication*** (value: A$500) for the paper titled *Efficient detection and recognition of 3D ears*.

o ***2022 ACS WA Dennis Moore 1962 Medal-finalist,*** my PhD student Fouzia Altaf received the award.

o ***iPREP Biodesign Internship*** Program Sept'22-Nov'22, my PhD student Hassan Mahmood was selected and successfully completed the internship at Vital Trace.

o ***iPREP Biodesign Internship*** - Round 2 2022, my PhD student Md Kislu Noman was selected for the internship at Avicena.

o ***APR.Intern Program (AMSI)*** Jan'21- May'21, two of my PhD students Md Mursalin and Hassan Mahmood were selected and successfully completed the internship with Singular Health Group Pty Ltd.

o ***Travel Grant Award,*** International Association of Dental Research *(**IADR**)* to attend the 2nd Meeting of the IADR-Asia Pacific Region (IADR-APR), Bangkok, Thailand, Aug 21-23, 2013.

o "***Award of Distinction***" for PhD thesis by the Board of Graduate Research School, UWA (Oct 2010). Only 8% of the thesis completed in 2010 and 2011 were considered for this prestigious award.

o ***Nomination for the Australasian Distinguished Doctoral Dissertation 2010*** (currently, renamed as [John Makepeace Bennette Award](#)), The Computing Research and Education Association of Australasia (CORE): By UWA School of Computer Science and Software Engineering. The thesis was rated "Exceptional"/ "Excellent" in most of the evaluation criteria by leading researchers and Professors from Institut National de la Recherche

Scientifique (INRS), France, University of Windsor, Canada and University of Wollongong, Australia.

o **UWA Graduate Research School Student Travel Award** 2008 (value: $1750) to attend Advanced Concepts for Intelligent Vision Systems (ACIVS 2008), Juan-les-Pins, Franc, October 20-24, 2008.

♦ *Teaching Excellence*

o **The Finalist for the 29th Lateral INCITE Awards, May 2020,** in the Peter Fillery Best Undergraduate Tertiary Student Project of the Year category, awarded to Glen McCulloch and Zak Spratt (project: 3DTel: A Web-Based 3D Visualisation Tool for Enhancing Learning, supervised by me), Western Australian Information Technology and Telecommunications Alliance (WAITTA).

o **Bankwest Postgraduate Computer Science Prize 2019,** awarded to MS by course work student Luna Yadan who conducted two of her research projects under my supervision.

o **Unibank Computing/Security Project Award 2019,** awarded to Glen McCulloch and Zak Spratt for the enhancement of the 3dTel project (CSG 3305) under my supervision.

o **The Finalist for the 28th WAITTA INCITE Awards** in the Peter Fillery Best Undergraduate Tertiary Student Project of the Year category (project: Three-dimensional visualization of objects for enhancing teaching, supervised by me), Western Australian Information Technology and Telecommunications Alliance (WAITTA).

o **Australian Computer Society Applied IT Project Prize 2018**, awarded to Jack Roza, for the project on 3D visualization of objects for enhancing teaching, completed under my coordinating supervision.

o **Unibank Computing/Security Project Award 2018**, awarded to Jack Roza, supervised by me.

♦ *Professional Recognition*

o **IEEE WA Section Outstanding Volunteer Award 2023,** in recognition of the dedication and outstanding contributions to the Western Australia Section.

o **DICTA 2023 Service Excellence Award,** in recognition of my exceptional service to the conference.

o **Certificate of merit for the 2023 Chapter Chair (SPS, WA),** for winning the Certified Chapter award, IEEE Signal Processing Society.

o **Senior Member,** Australian Computer Society. 2017.

o **Senior Member,** IEEE. 2020.

o **Certified Professional (CP),** Australian Computer Society. 2017.

o **Certified Technologist (CT),** Australian Computer Society. Sept 2012.

o **Associate Membership,** Faculty Academy for the Scholarship of Education, 2011.

o **SPS Certified Chapter Membership Growth Reward for three years in a row (2020-2022**), while I being the SPS WA chapter Secretary/Chair.

♦ *Sponsorship, Scholarships and Others*

o **Complementary registration sponsorship** *(Value: A$1950), Department of Jobs, Tourism, Science and Innovation, Government of Western Australia to attend to the Resources Technology Showcase 2019, Perth, WA, 27 - 28 November 2019.*

o **Academic Scholarships** (13 different national and international **scholarships** for academic excellence including SIRF, UIS and SIRF-Completion scholarships for PhD study at UWA, OIC scholarships at IUT (1996-2000 and 2002), Merit scholarship by Islami Bank

Foundation, Bangladesh (1993-1995) and Government of Bangladesh Board scholarships (1988-1995).

NEWS MEDIA EXPOSURES (TV-1, RADIO-4, PRINT-7 AND ONLINE-12)

1. [Funding boost to save WA's peatland ecosystems from uncertain future,](#) ECU News, Mar 9. 2023.
2. [Major grant to investigate threats to peatland ecosystems in south-west WA](#), UWA News, Mar 7. 2023.
3. [Islamic University and Edith Cowan University to undertake joint academic, research activities](#), United News of Bangladesh, Oct 4, 2023.
4. [Islamic University and Edith Cowan University to collaborate on academic, research activities](#), The Financial Express, Oct 4, 2023.
5. [MoU signed between IU and Australian university over research, Bangladesh Post](#), Bangladesh Post, Oct 3, 2023
6. [Using pictures of toasters and fridges to coach algorithms in detecting COVID-19](#), MY SPACE, Jun 28, 2021.
7. [Using Photos of Toasters and Fridges To Train Algorithms In Detecting COVID-19](#), Techilive, Jun 28, 2021.
8. [Researchers are using photos of toasters and fridges to train algorithms to detect COVID](#), EurekAlert, Jun 28, 2021.
9. [How researchers are using photos of toasters and fridges to train algorithms](#)
   a. [in detecting COVID-19](#), ECU Research News, Jun 29, 2021.
10. [AI tech to spot dangerous drivers](#), scimax, Sept 10, 2020.
11. [AI tech to spot dangerous drivers](#), ECU Research News, Sept 8, 2020.
12. [ECU Staff and Students Honour Roll - June 2020](#), ECU Matters, highlighting my students' achievement in the Lateral INCITE Award 2020, Jun 26, 2020.
13. 9 News (the national news service of the Nine Network in Australia), [Major breakthrough in predicting heart attack and stroke](#), May 9, 2020.
14. [Future heart and stroke risk predicted by the touch of a button](#), ECU Research News, Dec 10, 2019.
15. Live Radio interview with Fiona Bartholomaeus, "[AI and Sleep Apnoea](#)", The Mag, RTR FM 92.1, Perth-based Community Radio, 9:10 AM, Wed 30 Jan 2019.
16. Live Radio interview with Ebony Garlett, [Twin Cities FM](#) 89.7, Tues 11:40 AM, Sept 11, 2018.
17. AI News "[Researchers develop AI that classifies seizures using less data](#)", by Kyle Wiggers, VentureBeat, Feb 27, 2019.
18. Tech News, "[Picture a Perfect Night's Sleep/ How 3D cameras are helping doctors catch sleep apnoea](#)", Michelle Wheeler, Tech, Particle (magazine of Scitech), Aug 25, 2017.
19. Feature story, "[The secrets your body gives away](#)", Hillary Henry, Edith Magazine, Issue 09, May 2018.

20. Live Radio interview with Tracy Vo, WA Afternoons, **ABC Radio Perth**, 3:00 PM, Thu 15 Jun 2017.
21. Live Radio interview with John Logan, Twin Cities FM 89.7, Movers and Shakers program, 12:15PM, Wed 14 Jun 2017.
22. Feature story, "Could a selfie catch a sleeping killer?" You Study What?, Edith Magazine, Issue 07, May 2017.
23. News on *The West Australian* ("Scientists using ears for ID"), Page-13, Mar 26, 2012.
24. Front page story on *UWA News* ("Have you heard about latest ID research?"), Vol. 31(1), Mar 5, 2012.
25. Feature story on *Subiaco Post*, Perth, Australia ("Lost your ID card? Use an ear"), Vol. 38(47), Page- 33, Nov 26, 2011.
26. News on *Oral Health Centre of WA Newsletter* ("Research"), Vol. 62, Page 6, Oct 18, 2011.
27. News on 'Oral Health Centre of WA Newsletter' ("2013 Healy Research Collaboration Award"), Vol. 66A, Page 3, Dec 13, 2012.

RECOMMENDATIONS/APPRAISALS BY LEADING SCHOLARS

- "It's a good looking paper and *beautifully illustrated* and it is certainly quite *innovative* in 3D ear biometrics." -- by *Professor Mark Nixon*, School of Electronics and Computer Science University of Southampton. He is the most cited scholar in Ear Biometrics (21,294 Google citations) [Regarding my paper published on Pattern Recognition]
- "I was pleased to note that you are continuing your work on 3D ear recognition and that it has been published in Pattern Recognition. Work that fuses face features and ear features for recognition can improve the robustness of systems to facial pose and *I commend you and your research collaborators for your work to move the boundaries of the field forward*." – by Professor Patrick J. Flynn, Dept. of Computer Science & Engineering, University of Notre Dame.
- "I just came across your paper titled: "Multibiometric human recognition using 3D ear and face features" in Pattern Recognition. I wanted to congratulate you on this *nice work which I believe is beneficial for the biometrics community*." –by Professor Mohamed Abdel-Mottaleb, Chair, Department of Electrical & Computer Engineering, University of Miami

RESEARCH COLLABORATION (SELECTED)

♦ *International*
1) Dr Asim Iqbal, Visiting Research Fellow, ETH Zurich.
2) Prof. João P. S. Catalão, Faculty of Engineering, University of Porto, Portugal
3) Dr Ram Gopal Raj, Senior Lecturer, Department of Artificial Intelligence, Faculty of Computer Science & Information Technology, University of Malaya, Malaysia.
4) Prof Yasar Ayaz, Chairman/CPD at National Center of Artificial Intelligence (NCAI), Pakistan & Professor of AI & Robotics, NUST, Pakistan.
5) Prof. Dr. Valdemar Vicente Graciano Neto - INF/UFG, Goiânia, Brazil.
6) Prof. Fei Wang, Director of SENIOR, North China Electric Power University, China.

7) Assoc/Prof. Mohammad Abdur Razzaque, School of Computing, Teesside University, UK.
8) Asst/Prof. Quazi Abidur Rahman, Department of Computer Science, Trent University, Peterborough, ON, Canada.
9) Senior Assoc/Prof. Jungpil Shin, School of Computer Science and Engineering, The University of Aizu, Japan
10) Prof. Paul Emile Rossouw, Head Department of Orthodontics, University of North Carolina at Chapel Hill, USA (2011-2015).
11) Prof. Mauro Farella, Head, Discipline of Orthodontics, Department of Oral Sciences, Faculty of Dentistry, University of Otago, New Zealand (2011-2015).

♦ *National Academic*
1) Prof. Mohammed Bennamoun, Professor & Ex-Head, School of Computer Science and Software Engineering, UWA.
2) Assoc/Prof. Abbas Khosravi, Systems Modelling and Soft Computing, Deakin University
3) Assoc/Prof. Adel Al-Jumaily, University of Technology Sydney (UTS)
4) Prof. Ajmal Saeed Mian, School of Computer Science and Software Engineering, UWA.
5) Prof. Richard Prince, Faculty of Health and Medical Sciences, Internal Medicine, UWA (NHMRC Ideas 2019).
6) Assoc/Prof. Rafiqul Islam, School of Computing and Mathematics, Charles Sturt University.
7) Assoc/Prof. Mithran Goonewardene, Head of Orthodontics, School of Dentistry, UWA.
8) Prof. Tele Tan, Department of Mechanical Engineering, Curtin University (2013-2015)
9) Prof. Geoff West, Department of Spatial Information, Curtin University (2013-2015)
10) Prof. Anthony (Tony) Lucey, School of Civil and Mechanical Engineering, Curtin University. (2012-2015)
11) Prof. Peter Eastwood, Director, Centre for Sleep Science, UWA. (2011-2015)

♦ *Industry Partners*
1) Prof. Girish Dwivedi, Wesfarmers Chair and Consultant Cardiologist, Fiona Stanley Hospital, WA.
2) Mark Grogan, Managing Director and Co-founder, Circle 8, Perth, WA.
3) James Hill, Chief Operating Officer, Singular Health Group Inc, Perth, WA.
4) Dr Ashu Gupta, Medical Imaging Consultant, Fiona Stanley Hospital, WA.
5) Dr Guy Edward Gallasch, Land Division, Defence Science & Technology, Edinburgh SA
6) Jason Waller, CEO and Managing Director, Intelicare, Perth, WA.
7) Warren Harding, Board Director, Disability services, WA Govt and Deputy chair, Alzheimer's WA.
8) Mr Felicity Beaulieu, Chief Operating Officer-Community, Bethanie, WA.
9) Dr Scott Claxton, respiratory and sleep surgeon at GenesisCare – SleepCare, Joondalup, WA.
10) Dr Desmond Menon, GenCore Healthtech (Smart Bin project).
11) Mr. Stephen Hoefs, Representative, Defense Science and Technology (DST), Garden Island, WA. (2013-2015)

♦ *ECU (Interdisciplinary)*
1) Prof. Paul Lavery, Professor of Marine Ecology, Centre for Marine Ecosystems Research, School of Science, ECU.
2) Prof. Craig Vali, Director, Security Research Institute, ECU.
3) Prof. Kamal Alameh, Director, Electron Science Research Institute, ECU.

4) Prof. Davina Porock, Professorial Research Fellow, School of Nursing and Midwifery
5) Assoc/Prof. Joshua Lewis, School of Medical and Health Sciences, ECU.
6) Assoc/Prof. Alex Rassau, Associate Dean, School of Engineering
7) Assoc/Prof. Douglas Chai, Associate Dean, School of Engineering, ECU.
8) Dr Dana Dermody, Lecturer, School of Nursing and Midwifery, ECU.
9) Dr Kristina Lemson, Lecturer, Teaching and Learning, School of Science, ECU.

TEACHING EXCELLENCE

- New unit development: Artificial Intelligence (Masters), received UTEI 80 in the first delivery
- Significant Redevelopment of Units: Systems Analysis (turned this large unit of over 200 enrolments from one of the highest failing rates (from 29% (2016) to 8% (2018).) units to a high performing unit (from 45% to 80%) and overall unit satisfaction in UTEI from -14 to 28), Object-Oriented Analysis and Design (most modules with new lecture notes, tutorials and assessments, receiving great UTEI feedback) and Intelligent Systems (improved the UTEI overall unit satisfaction -16 to 21 per cent)
- Effective delivery of the content and timely and amicable communication with students that improved UTEI score with highly positive feedback such as ""Really put a lot of effort into his lecture notes and explanations", "Shams had the unit outline laid out clearly and continuously reminded us of upcoming assessments and to complete them to not miss out on marks", "Solving my issues on time and providing alternative solutions."
- Supervised 22 Applied IT Projects unit students (seven projects), 14 Special Topic (one semester long MS level) unit students, two Masters Project unit students and one Work Integrated Learning (WIL) student all working in AI projects. Few of my supervised Applied IT projects became the finalists for the 28th and the 29th Lateral INCITE Awards 2018 and 2019, ACS Applied IT Project Prize 2018 and the Unibank Computing/Security Project Award 218.

PROFESSIONAL SERVICES

♦ *Office Bearer/Committee Membership of Professional Bodies*
- International
  - Member of Scholarship Committee, IEEE Signal Processing Society, USA (2023-present).
  - Member, IEEE Access Ad-hoc Committee for Plagiarism Investigation, (May, 2023-present)
  -
- Local
  - Chair, IEEE WA Signal Processing Society Chapter (2021-present)
  - Educational Activities Coordinator*, IEEE WA Section* (2021)
  - Executive Committee member*, IEEE WA Section* (2019-present)
  - *University Contact Officer* (UCO), ECU (Mar 3, 2020 - present) to act as an alternative support contact on matters related to harassment, discrimination and/or victimization and reporting to Pro Vice Chancellor (Equity and Indigenous).

- o Founding Lead, the 3D Sensing, Visualisation and Analytics (3DSVA) Lab, School of Science, established through the School Infra-structure fund 2017 of $115K secured by a team led by me (Nov 2017 - present).
- o Represented Pro-VC (International), ECU at the signing ceremony of two bilateral Memorandum of Understanding (MoU) agreements: one with Islamic University (IU), Kushtia, Bangladesh and another with Ahsanullah University of Science and Technology (AUST), Dhaka, Bangladesh (Oct 3, 2023 and Oct 4, 2023 respectively).
- o Member, *School Academic Study Leave Committee*, School of Science, ECU (2023-present)
- o Member, *Scholarships Ranking Committee*, School of Science, ECU (2021-2022)
- o Member, *Low-risk Ethics Sub-committee*, School of Science, ECU (effective Jul 2020) to deal with human ethics applications which are identified as low risk and are therefore assessable at school level.
- o Member, *Grants Evaluation Committee*, School of Science, ECU (effective Mar 24, 2020).
- o Chair, ECU PhD Oral Examination Panel for Mohammad Khairul Basher (Sept 1, 2023)
- o Seminar Coordinator, AI series seminars, School of Science, ECU (2023). [organized four seminars with national and international speakers].
- o Founding Member, Centre for AI & ML, School of Science, ECU (2021-present).
- o Member, Nutrition & Health Innovation Research Institute, School of Medical and Health Sciences, ECU (Jun 6, 2023-present).
- o Member, Immersive Tech Community, ECU (Jul 2023- present).
- o Member, Judging panel for Postgrad Symposium, School of Science, ECU (Nov 26, 2021).
- o Secretary, IEEE WA Signal Processing Chapter (2019-2020)
- o Member, Blended Learning Community and SoTL Learning Community, based at ECU.
- o Committee member, *WA Branch Conference committee*, Australian Computer Society (31 July 2017-19 Dec 2019)
- o Executive Committee member, UWA Researchers' Association (2012-2014).
- o Member, Professional Development Focus Group, ECU (Aug 27, 2019 – present)
- o Member, The Early and Mid-Career Research Network (EMCRN), ECU (May 8, 2019-Present)
- o Member, student appeal review, School of Science, ECU (2016-present).
- o Member, Peer Mentoring Group, UWA (2013-2014).
- o Member, Infrastructure Committee and Information and Publicity Committee, College of Computer Science and Engineering (CCSE), KFUPM (2004-2005).

♦*Grant Evaluation (3)*

- International:
1. Evaluator, SMASH project (Marie Sklodowska Curie COFUND action funded by the European Union's Horizon Europe research and innovation programme).
2. External reviewer, EUROFLEETS+ Regional, EUROFLEETSPlus (an alliance of European Marine Research Infrastructure). (2020), recommended by the EUROFLEETS+ Scientific Liaison Panel.
- National:

1. External Assessor, application of Project Grant 2015 (funding commencing in 2016), National Health and Medical Research Council (NHMRC).

♦ *Thesis Examination (17 including four from overseas)*
1) University of Western Sydney, NSW, Australia (PhD)
2) University of Sydney, NSW, Australia (PhD)
3) RMIT University, VIC, Australia (**PhD-3**)
5) Curtin University of Technology, WA, Australia (PhD-2)
6) University of Wollongong, NSW, Australia (**PhD-2**)
7) University of Technology Sydney, NSW, Australia (**PhD-2**)
8) Murdoch University, WA, Australia (Research **Masters** with Training)
9) Monash University, VIC, Australia (**MPh**). It has been selected for Monash University Vice-Chancellor's Commendation for thesis excellence.
10) COMSATS University Islamabad, Pakistan (PhD-2)
11) University of Engineering and Technology Taxila, Islamabad, Pakistan (PhD)
12) Andhra University, India (**PhD**)

♦*Thesis Proposal Review (6)*
1) PhD, Nipuna Wijayathunga, School of Engineering, Edith Cowan University, 2022.
2) Masters, David La Bianca, School of Science, Edith Cowan University, 2022
3) PhD, Wayne Poon, School of Medical and Health Sciences, ECU, 2021
4) PhD, Ahmad A. Khanfar, School of Business and Law, Edith Cowan University, 2021
5) PhD, Waqas Uzair, School of Engineering, Edith Cowan University, 2019.
6) Honours, Camilo Andres Pestana Cardeno, School of Science, Edith Cowan University, 2016

♦ *Journal Editing*
Publons verified editor records: 27
- o ***Associate Editor, IEEE Access*** [Since Jul 30, 2020]
- o Guest Editor: Special Issue on "New Insight in Biomedicine: Optics, Ultrasound and Imaging", Applied Sciences (IF 2.838) [2022-2023]
- o Guest Editor, Special Issue on Dependable and Secure Healthcare in the Era of 5G, Healthcare, MDPI (IF20-2.645, Q2 in Health Policy & Services) [2019- 2021]

♦ *Conference Organisation*
I am/was member of the Organising Committee of 13 conferences in different roles:
1. Digital Image Computing: Techniques and Applications (DICTA), 2024, Perth, Australia [**General Chair**]
2. Panellist speaker, Knowledge Forum panel titled "AI Drives Transformation of Oil and Gas Industry curated by Society of Petroleum Engineers]" in AOG Energy 2024, Thursday 14th March 2024.
3. The 30th International Conference on Neural Information Processing (ICONIP2023), Changsha, China, November 20-23, 2023 [Invited Session Co-Chair]
4. Digital Image Computing: Techniques and Applications (DICTA), 2023, Port Macquarie, New South Wales, Australia, Nov 28-Dec 1, 2024. [Publication Co-Chair and a Session Co-Chair]
5. *DICTA*, 2021, Brisbane, Australia [Workshop and Special Session Chair]

6. ***DICTA***, 2020, Melbourne, Australia [Award/Promotion Chair]
7. DICTA 2019, Western Australia [Publicity Chair]
8. International Conference on Machine Learning and Data Engineering (ICMLDE), 2019 (TaiPei, Taiwan), 2018 & 2017 (Sydney, Australia) [Session Chair, and Organising Committee member]
9. The ACS WA State Conference, 2018 [Session Chair, and Organising Committee member]
10. ICMLDE 2017 (Sydney, Australia) [Session Chair]
11. International Conference on Computer Networks, Big Data and IoT (ICCBI), India, 2018, 2019 [Technical Committee Chair]

♦ *Symposium/Workshop Organisation*
1. Workshop on "LLM-powered Conversational Search: A hands-on Tutorial" by Mr Imran Hossain from IBM Canberra, ECU School of Science, Sept 20, 2023.
2. Workshop on "Python for Medical Image Processing" by Dr Hassan Mahmood from Vital Trace, ECU School of Science, Sept 20, 2023.
3. Workshop on "Natural Image Processing with Python, From Basics to Advanced Techniques" by Dr Md Moniruzzaman from Fiona Stanley Hospital, ECU School of Science, Sept 20, 2023.
4. Workshop on "Deep Learning for Medical Image Analysis", DICTA2021, Nov 28, 2021.
5. Workshop on "AI Techniques in MATLAB for Signal and Image Processing", 1-5pm, Aug 29, 2019 (Jointly organised by School of Science and IEEE Signal Processing Chapter) (Presented by Dr Emmanuel Blanchard from Mathworks Inc, registered by 77, attended by 45)
6. Workshop on "Demystifying Deep Learning and Deep Learning Onramp", 9am 12pm, Nov 22, 2018 (Presented by Dr Emmanuel Blanchard from Mathworks Inc, attended by 45)
7. ***Symposium on Artificial Intelligence***, co-event with ECU Research Week 2017, Sep 18, 2017. [attended by 63, was the lead organiser]
8. Workshop on MATLAB at ECU, 8.30am - 12pm on Tuesday, 5 September 2017 (Presented by Dr Mandar Gujrathi from Mathworks Inc, registered by 68, attended by 56, jointly organised by me and Assoc/Prof Mehdi Khiadani, ADR of School of Engineering)
9. Workshop on how to use Artec scanners (three): 2017, 2018 and 2019
10. Workshop on how to use Philips home-based sleep kits for research, 2-5PM, 20th Dec, 2017.

♦*Technical Seminar Organisation/Coordination*
1. "Detecting doubt from multimodal data" by Prof Tom Gedeon, Human-Centric Advancements Chair in AI, Curtin University at ECU School of Science AI seminar series, Oct 19, 2023.
2. "Developing Generative AI apps on AWS" by Dr Mustafa Aldemir, Robotics Prototyping Lead, AWS at ECU School of Science AI seminar series, Oct 5, 2023.
3. "Advancing Precision Medicine Using Machine Learning and AI" by Dr Abdul Baten, Inaugural Genomics Bioinformatician, the Institute of Precision Medicine & Bioinformatics within Royal Prince Alfred Hospital, Sydney at ECU School of Science AI seminar series, Sept 28, 2023.
4. "Early Detection of Misinformation & Disinformation on Social Media" by Prof Prasenjit Mitra, Professor at The Pennsylvania State University and a visiting Professor at the L3S Center at the Leibniz University at Hannover, Germany, at Centre for AI & ML, Aug 3, 2023.

5. 11 IEEE SPS technical seminars, 2021-2023.
6. Ten guest lecture seminars for Artificial Intelligence unit in 2021-2023.
7. Seven Seminars on Object Oriented Analysis and Design, 2020-2022 (Guest speakers: Rob Whitney, Principal Architect, DXC Inc and Mrs Amanda Mace, Operations Manager, Web Key IT Pty Ltd at ECU (15th and 8th May, 2020 respectively))
8. Seminars on Systems Analysis (Guest speakers: Rob Whitney, Principal Architect, DXC Inc and Mrs Amanda Mace, Operations Manager, Web Key IT Pty Ltd) at ECU (25th May, 2020)
9. Seminars on Systems Analysis (Guest speakers: Rob Whitney, Principal Architect, DXC Inc and Dr Vivinne Conway, Director, Web Key IT Pty Ltd) at ECU (8th Oct, 2019)
10. Seminars on Industrial Applications of AI (Guest speakers from Schlumberger, Bureau Veritas and Crown Perth) at ECU (21st and 23rd Oct, 2019)

SERVICE/OTHER RELEVANT PROJECTS

♦ *Journal Manuscripts Review*
Publons verified reviews: 67 (96th Percentile, Median:4), Reviews to Publication Ratio: 1.0:1
I am a regular reviewer of a total of **37 journals** including the following high impact ones (2018 impact factor):
1. *IEEE Transactions on Medical Imaging (IF22-10.048)*
2. *Proceedings of IEEE (IF18-10.69)*
3. *ACM Transactions on Intelligent Systems and Technology (IF23-10.489)*
4. *IEEE Transactions on Emerging Topics in Computational Intelligence (Impact Score 10.2)*
5. *Artificial Intelligence Review (IF 9.588)*
6. *Engineering Applications of Artificial Intelligence (7.802)*
7. *IEEE Transactions on Information Forensics & Security* (6.211)
8. WIREs Data Mining and Knowledge Discovery (IF21-7.558)
9. IEEE Reviews in Biomedical Engineering (7.073)
10. **ACM Computing Surveys** (6.131)
11. Ecological Informatics (5.1)
12. IEEE Transaction on Multimedia (5.452)
13. IEEE Trans on Systems, Man and Cybernetics part A: Systems and Humans (5.131)
14. Scientific Reports, Nature Publishing Group (IF23-4.997)
15. Expert Systems with Applications (4.292)
16. Methods in Ecology and Evolution (7.099)
17. IEEE Transactions on Power Delivery (5.74)
18. IEEE Consumer Electronics Magazine (4.016)
19. IEEE Access (4.098)
20. Neural Computing and Applications (5.10)
21. Biomedical Optics Express (3.562)
22. PeerJ Computer Science (3.09)
23. Sensors (3.031)
24. Advanced Engineering Informatics (3.879)
25. Pattern Recognition Letters (2.810)
26. Image and Vision Computing (2.747)
27. Journal of Systems and Software (2.559)

28. International Journal of Remote Sensing (2.493)
29. Journal of Visual Communication and Image Representation (2.259)

♦ *Conference Papers Review*

I have served as reviewer for more than **30 conferences** including the following:
1. WACV2024 (ERA-A)
2. CVPR2022-23 (ERA-A*)
3. WACV 2023-2024 (ERA-A)
4. ECCV2022 (ERA-A*)
5. ICONIP2023.
6. DICTA 2023, 2022, 2021, 2019, 2012, 2011 (ERA-B)
7. Advanced Concepts for Intelligent Vision Systems (ACIVS), 2020, 2018, 2017 (ERA-B)
8. IEEE Region 10 Symposium (TENSYMP), 2023.
9. INTAP 2018; ICIEV, 2016; EICT 2013 & 2015; ATIS 2013
10. IMCAIT 2013; ICNIT 2012; ICACT 2012
11. INMIC 2011 (ERA-C); ICIIP 2011; ICCCT 2011
12. The 7th Int'l Conference on Digital Content Technology and its Applications (IDCTA), 2011, Korea. (ERA-C)

♦ *Mentorship*
1. Dr M Aminul Haque, Adjunct Research Fellow (research supervision), ECU, 2022.
2. Dr Seyed Mohammad Jafer Jalali, Deakin University (paper writing, student supervision), 2022.
3. Dr Leslie Sikos, School of Science, ECU (promotion application), 2022.
4. Dr Kunal Dhiman, Associate Research Fellow, School of Medicine, Deakin University (Grant writing), 2021.
5. Dr Mohiuddin Ahmed, Mentor for the Principal Supervisor Accreditation Program (PSAP) 2019, ECU.
6. Dr Naeem Janjua, developing teaching (Blackboard) resources and research collaboration and supervision, ECU.
7. Dr Ahmed Ibrahim, assisting in grant writing (leading to successful infrastructure grant from the school), ECU.
8. Dr Juman Abu-Khalaf, developing teaching resources (Intelligent Systems), and research collaboration, ECU.
9. Mr Vasanth KUMAR, guided to re-start PhD and getting Cyber CRC scholarship when he lost job (Researcher) from Electron Science Research Institute (ESRI), ECU.
10. Mr Raihan Seraj, PhD student, Department of Electrical and Computer Engineering, McGill University, Canada.
11. Mr KH Tohidul Islam, PhD student, The University of Melbourne, Melbourne, Australia.
12. Mr Seyed Mohammad Jafer Jalali, PhD student, Deakin University, Melbourne, Australia.
13. Mr Md Atiqur Rahman, PhD Student, The University of Aizu, Japan.

♦ *Scientific Outreach/Community Engagement Activities (Selected)*
o Participated in the Micro-Mentoring Experience (MiME) event at ICIP 2023 conference and discussed with young researchers as a mentor, KLCC, Malaysia, Oct 8, 2023.
o Served as a Mentor in the Theo Murphy Initiative EMCR Mentoring Event as, UWA, May 31, 2023.

- o Represented ECU in the networking lunch hosted by the UK Consul General on Tuesday 6th December 1-2.30pm as part of a West Tech Fest event at the Westin Hotel, focused on agtech and regional innovation, with the Minister for Innovation and ICT, Hon Stephen Dawson also presenting.
- o Led the bid for ICIP2026 conference attracting funding commitments of $216K from Business Events Perth and $80K from Business Events Australia.
- o Member of the Judges Panel, Game Changer Awards 2023, ECU JO campus (02/11/23). This award inspires STEM in WA schools. It is the sister awards to WAITTA INCITE Awards that promote innovation in WA.
- o Member of the Judges Panel, Game Changer Awards 2022 (12/11/22).
- o Participated in the AARP Open Day with Michael Milford, Director, QUT Centre for Robotics and Tour the Australian Automation and Robotics Precinct, Neerabup, WA 6031 (15/11/2023)
- o Attended the webcast "CSIRO Conversations: Responsible AI - Building a Stronger Ecosystem for Business Success" hosted by Jon Whittle, Director, CSIRO's Data61 (09/06/23).
- o Co-organise as a General Co-Chair the 1st Conference on Contributions of Bangladeshi Researchers in Addressing Emerging Global Challenges, Nov, 2022, UWA, Perth, WA. (15/11/2022).
- o Member of the Judges Panel, 2021 Annual Student Competition of IEEE WA Section (01/06/2021) at Murdoch university.
- o Member of the Judges Panel, Game Changer Awards 2019 (23/11/19).
- o Participated as a *Scientist in the Science Café* (a National Science Week event organized by Scitech at UWA) in the years 2017 -2021 and explained my research with STEM students from different schools.
- o Research Demonstration at ECU Stall, Perth Science Festival, Aug 15, 2019.
- o Represented School of Science and demonstrated promotional materials at ACM WA conferences 2017-2019 and WWW 2017 conference and exhibition, Perth.
- o Initiated and organized two successful MoUs: one with Islamic University (IU), Kushtia, Bangladesh and another with Ahsanullah University of Science and Technology (AUST), Dhaka, Bangladesh (Oct, 2023).
- o Initiated the process of signing MoUs with higher executives of four overseas universities (including Dean of International of University of Malaya and Pro-Vice Chancellors of Daffodil University and American International University of Bangladesh, and Vice Chancellor of North South University)
- o Distributed marketing and promotional materials to different overseas institutes including BUET (Country rank-1), University of Daffodil and University of Malaya (QS World rank-59 and Country rank-1) in 2017, and Islamic University of Technology, Ahsanullah University of Science and Technology, Daffodil University), North South University and American International University of Bangladesh in 2019-2020.
- o Proposed a best paper award from IEEE WA section for the local student participants of DICTA 2019 to encourage them to get involved with IEEE. The proposal was accepted by section executive and I had the pleasure to coordinate with the conference team and offer the awards.Assisted visiting delegates from Australian Computer Society (for course accreditation), keynotes speakers for the research symposium (including Prof CT Lin from UTS,) and other visiting researchers.
- o Visited academics in University of Technology Sydney, University of Sydney, University of Western Sydney, University of Melbourne, Deakin University, RMIT University (funded by

collaborative grants) and discussed about existing and potential future research and grant application.
- o Met visiting delegates from different industries for potential research collaboration including DST South Australia, Fiona Stanley Hospital, Joondalup City Council.
- o Staff demonstrator and facilitator, ECU JO (2018), ML (2016 and 2017) Open Day
- o Shared and commented on news/features related to ECU in social media including Linkedin.
- o Staff demonstrator and facilitator, UWA Open Day (Aug 9, 2015).
- o Help Point Coordinator, UWA Open Day (Aug 14, 2011).
- o CSSE Research Project Presenter at UWA Open Day (2007-2009).

♦ *Community and Extracurricular Activities (Selected)*
- o Chairman, Armadale Masjid and Islamic Centre, Armadale, WA (2019-2020).
- o Invited guest (and sponsor), Annual Year 12 Muslim Achievement Awards, Human Appeal Australia, 2018 and 2020 (13/3/20).
- o Secretary, Armadale Masjid and Islamic Centre, Armadale, WA (2016-2019).
- o Invited guest as a Muslim community leader, WA Police Commissioner's Morning Tea, May 1, 2019 and Jun 27, 2018.
- o Invited guest as a Muslim community leader, Breakfast in Ramadan at the WA Parliament House, 2019.
- o Invited guest as a community leader, welcome party to the Governor General Hon. David Hurley AC DSC (Rtd) while he visited Perth Mosque (12 Sep, 2019).
- o Site Coordinator and volunteer, Clean Up Australia Day (2009-2019).
- o Participant, Conference on Rebuilding Harmony, UWA (Sep 11, 2011).
- o Executive Committee member (2006-2007) and Secretary General, UWAMSA(2008).
- o Member, Post Graduate Student Association (PSA), UWA (2006-2010).
- o Member, Language and Cultural Exchange program (LACE), UWA (2006-2016).
- o Member, UniLink, International Friendship program, UWA (2008-2010).

PROFESSIONAL DEVELOPMENT

♦ *Certificate/Short Courses*
- **Research and Research Training**
- o Artificial Intelligence: Cloud and Edge Implementations (online) Course (Dec 4, 2021 to Mar 8, 2DK022), University of Oxford.
- o Artificial Intelligence for Agriculture Technology and Climate Change (online) (June 6-15, 2023), , University of Oxford.
- o Principal Supervisor Accreditation Program, PSAP (audited, 2017), Graduate Research School, ECU.
- o Supervisor Program (June 2016-contd.)
- o Masterclass on Costing and Pricing of Research, Australasian Research Management Society Inc (ARMS), 14 November 2023 - Curtin University.
- o Masterclass on Fundamentals of Project Management, Australasian Research Management Society Inc (ARMS), 13 November 2023 - Curtin University.
- o 3D Reconstruction Using Leica 3D Long Range Laser Scanner, CSSE, UWA (2008).
- o Using the Statistical tool SPSS, Centre for Applied Statistics, UWA (Dec 4-6, 2007).
- o Linear regression and ANOVA, Centre for Applied Statistics, UWA (Jul 24-25, 2012).

- **Teaching and Learning**
  o Unit Coordination at ECU, PDC113 (Jul 2016-Contd.)
  o ***Teaching Excellence through 21st Century Learning Design***, Curtin Teaching and Learning Institute in collaboration with SRI Education, USA (Nov 10-13, 2014).
  o Staff English Program 2014, Curtin Learning Institute (Sept 2-Oct 22, 2014).
  o ***Foundations of University Teaching and Learning***, Centre for the Advancement of Teaching and Learning (CATL), UWA (Feb 14-May 11, 2011).
  o Clinical Teaching and Supervision *"Education within the Clinical Workplace"* Education Centre, Faculty of Medicine, Dentistry and Health Sciences, UWA (Nov 19-20, 2012).
  o Teaching Methodology and Techniques, SoftEd Ltd, Dhaka, Bangladesh (Jan 9-July 8, 2001).
  o English Language Support for Staff, UWA (18/6, 25/6, 2/7, 9/7/2010).

- **Others**
  o SOL Information Management, Curtin University (July 19, 2015).
  o UWA Health and Safety Induction (July 18, 2015)
  o Certificate Course in Oracle 8i with Developer 6 (8/5/01-25/06/01), Computer Centre Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh.

♦ *Workshops:* Attended more than 50 workshops related to teaching and research including-
- **Specialist Research: "**You, Your Research and ECU 2023" (ECU Research Services, JO, 9:30 AM to 1 PM, 08/11/2023), **"**Future Health Research and Innovation (FHRI) Fund October 2023 Open Day" (WA State Government, Tuesday 31 October 8:30 AM to 12:30 PM at JO, ECU), "The Pursuit of Research Impact Discussion Panel" (ECU EMCRN, 17/7/23), "Oral Chair Training" (GRS, ECU, 11/11/2021), "Research Output Eligibility and ECU's Research Activity System" (21/10/20), "Assessing Achievement Relative to Opportunity at ECU" (22/6/20), "Securing Digital Futures Workshop - Defence research collaborations" (10/06/20), "Nail the story: Win that Grant. Six rules for crafting a compelling proposal workshop" Dr Lisa Curtis Wendlandt from [Mind Your Way](link) (10-11/2/20), "Measuring research academic impact using citation metrics" (30/9/19), "Industry Collaboration Grant Writing", "Survival Skills for Scientists", "How to write better thesis", "The Research Orientation", and, "Academic Poster Writing". "Content Creation for Dome Displays", "Biomechanics Workshop-Fostering quality in cross-disciplinary research", "Simulink and Raspberry Pi", "MATLAB Tour", "HDR Update", "ARC and NHMRC grant writing workshops". "Introduction to Linux", "Developing Parallel Applications", "Scaling Parallel Applications" and "Managing Research Data".

- **Research Supervision:** "Supervising external research candidates", "GRS HDR Supervisor Update", "GRS HDR Supervisor Induction", "Supervisor Induction", "Who writes paper? Issues of Authorship", "HDR Update", "Supervising Postgraduate Students".

- **Teaching and Learning:** "Unit Review Committee (URC) and Progression Panel Workshop for Unit Coordinators (14/05/21), "International offshore delivery for S2 - Info webinar for UC's" (25/06/20), "Scholarship of Teaching and Learning (SoTL) Learning Community Meetings" (23/9/19), "Introduction to Blackboard", "EO Online Module 1 & 2 (All Staff)", "First Year Units with high fail rates workshop", "Introduction to Moodle", "Introduction to Tutoring Technical Subjects", "Small Group Teaching: Seminars & Tutorials", "Introduction to University Teaching", and "What Counts as Evidence of Good Teaching".

- **Media:** "The Conversation Masterclass" (18/11/19), "Media Awareness Training" and "How to pitch stories and write for The Conversation", Linkedin workshop for researchers and research students (23/06/20), Twitter workshop for researchers and research students (17/06/20).

- **Leadership:** "Managing Unconscious Bias in the Workplace" (07/04/20), "Difficult Conversations", "SP: Managing within the ECU Context", "SP: Supervisor Program Induction".

- **Others:** "Ethics Sub-Committee Induction" (22/7/20), **"**UCO Catch Up" (24/06/20), "University Contact Officer Role" (3/3/20 conducted by the Equal Opportunity Commission, WA), "Procrastination and Optimising your Time" (19/9/19), "Health and Wellbeing", "Health and Safety Induction", "Building an Academic CV"(03/06/20 and 26/07/19), "Academic Promotion at ECU", "Staff Orientation: Working at ECU", "Staff Orientation: Working at ECU".

♦ *Conferences (apart from those where I presented)*
- NeurIPS 2023
- CVPR 2023
- DICTA 2023
- AJCAI 2022
- Data Driven Decision D3 2022 and 2023
- MICCAI 2022
- ECCV2020
- ICIP2021
- IVCNZ2021, 2022
- Data-Driven Decisions Conference (D3) 2022. Thursday 21st July, at UniClub UWA.
- Digital Image Computing: Techniques and Applications (DICTA), 2021, Gold coast, Queensland, Australia.
- The International Conference on Computing Advancements (ICCA 2020), Jan 10-12, 2020, Dhaka, Bangladesh.
- Australasian Conference on Robotics and Automation, 2022.
- Digital Image Computing: Techniques and Applications (DICTA), 2019, Perth, Western Australia.
- Digital Image Computing: Techniques and Applications (DICTA), 2017, Sydney, NSW, Australia.
- The 26th International World Wide Web Conference 2017, Perth Australia (represented ECU in the exhibition)
- ACS annual conference, 2018 and 2019 (represented ECU in the exhibition)

♦ *Seminars*
- ECU School of Science seminars, and AI Lab's reading group seminars.
- IEEE WA Signal Proc Chapter seminars.
- HAIG health group meeting seminars (coordinated by Dr Ashu Gupta, Fiona Stanley Hospital)
- "Wearable Stretchable Sensors for Remote Health Monitoring" (Dr Jumana Abu-Khalaf, 22/7/20)
- "Blockchain and the future of digital disruption" (Dr Vidy Potdar, Curtin Uni, 30/9/19)

o "AI vs Smart Grids: Interplay and Interaction" (by Prof Xinghuo Yu, 19/09/19)
o Fortnightly seminars, school of CSSE, UWA

PROFESSIONAL MEMBERSHIP

o Senior Member, IEEE [2020-present]
o Senior Member and Certified Professional (CP), Australian Computer Society [2017-present]
o Member, IEEE Signal Processing Society (SPS) [25 Mar 2019-present]
o Member, Australian Pattern Recognition Society (APRS) [2012-present]
o Member, Australasian Research Management Society Inc (ARMS) [2023-present]
o Member, Int'l Assoc. for Dental Research (IADR) [2011-13]
o Member, IEEE Computer Society (CPS) [2011-16]
o Member, IEEE Communications Society [2011]
o Member, Institute of Engineers, Bangladesh [2000-2003]

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