

GADRI Membership Application Form

 a.r.u. Anglia Ruskin University	
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<p>Institute Outline:</p> <p>ARU is an innovative global university with students from 185 countries coming to study with us. We're the Times Higher Education University of the Year 2023. We've received a Gold award for the quality of our education in the Teaching Excellence Framework, a UK-wide review of university teaching standards. We're also rated in the top 10% of universities in the country for graduate employment, and received the University of the Year title at the prestigious UK Social Mobility Awards 2023. We were named Times Higher Education University of the Year 2023. This prestigious award recognised our success in delivering high-impact initiatives across our campuses. In November 2021, we were proud to receive The Queen's Anniversary Prize for our world-leading music therapy work – and in particular our research with people living with dementia, and their families. The Queen's Anniversary Prizes recognise outstanding work by UK universities and colleges that shows the highest levels of quality and innovation and delivers significant public benefit.</p>	

Research Interests (areas of research disciplines, number of faculty members, etc.):

ARU comprises four faculties: Arts, Humanities, Education and Social Sciences

Business and Law; Health, Medicine and Social Care; and Science and Engineering. We have a wide range of research activities which have been classified under three overarching themes:

- [Health, Performance and Wellbeing](#)
- [Safe and Inclusive Communities](#)
- [Sustainable Futures](#)

Disaster resilience work is conducted by an interdisciplinary group of researchers from health, architectural and computer science engineering. It is classified under our Sustainable Futures research theme and covered issues such as hospital functionality (pre and post disasters), workforce resilience and capacity building, built environment design and impact on health service, application of Internet of Things to assess flood risks, application of Artificial Intelligence to boost emergency departments during mass casualties etc.

A brief description of Research Achievements and Challenges:

Research achievements include, but not limited to, a generation of excellent number of publications and attraction of funding. It also includes collaborating with global agencies and institutions such as the World Health Organization (WHO). Challenges include stressed students, many of whom come from the health sectors who are already burnt out due to their extensive workload. The UK Higher Education sector is also going through some challenges, which put pressure on staff who strive to maintain the highest quality of output.

Comparative advantage/contribution to GADRI Activities:

Enthusiastic and multi-disciplinary team with strong international connections and complementary expertise and experience in healthcare, infrastructure and advanced technology (e.g. Internet of Things, Artificial Intelligence) who will eagerly collaborate and develop meaningful high quality research work.

Expected Outputs/Results:

- Achour, N. (2024) 'Resilient Hospital Structures, Systems and Services', Oxford Research Encyclopedia of Natural Hazard Science. DOI: <https://doi.org/10.1093/acrefore/9780199389407.013.432>.
- Achour, N, Elhaj, H and Ali, A (2022) 'Hospital resilience to extreme events: A staff capability of attendance perspective', *International Journal of Disaster Risk Reduction* (IJDRR). 71(Apr) DOI: <https://doi.org/10.1016/j.ijdr.2022.102851>.
- Achour, N; Pascale, F; Price, ADF; Polverino, F; Aciksari, K; Özüçelik, DN; Miyajima, M; Yoshida, M (2021), "Learning lessons from the 2011 Van Earthquake to enhance healthcare surge capacity in Turkey", *Earthquake Disasters Prevention and Reconstruction*, in Xu, J, Lu, Y, Penning-Rowsell, E C (Eds), Routledge, New York. ISBN 9781032002484, DOI: <https://doi.org/10.4324/9781003173328>.
- Achour, N and Miyajima, M (2020) "Post-earthquake hospital functionality evaluation: The case of Kumamoto Earthquake 2016", *Earthquake Spectra*. DOI: <https://doi.org/10.1177/8755293020926180>.
- I. Ahmed, M. Ahmad, A. Chehri and G. Joen (2024). "Sustainable Flood Risk Identification and Assessment Using Artificial Intelligence: A Literature Review and Case Scenario," *2024 IEEE World Forum on Public Safety Technology (WFPST)*, Herndon, VA, USA, 2024, pp. 25-30, doi: <https://doi.org/10.1109/WFPST58552.2024.00041>.
- I. Ahmed, M. Ahmad, G. Jeon and A. Chehri, "An Internet of Things and AI-Powered Framework for Long-Term Flood Risk Evaluation," in *IEEE Internet of Things Journal*, vol. 11, no. 3, pp. 3812-3819, 1 Feb.1, 2024, doi: <https://doi.org/10.1109/JIOT.2023.3308564>.
- Ballantyne, H and Achour, N (2022) 'The Challenges of Nurse Redeployment and Opportunities for Leadership during COVID-19 Pandemic', *Disaster Medicine and Public Health Preparedness*. DOI: <https://doi.org/10.1017/dmp.2022.43>.
- Chakraborty, R. and Achour, N. (2024) Setting up a Just and Fair ICU Triage Process During a Pandemic: A Systematic Review. *Healthcare*, 12(2),146. <https://doi.org/10.3390/healthcare12020146>.
- Elhaj, H., Achour, N., Hoque Tania, M. and Aciksari, K. (2023) 'A Comparative Study of Supervised Machine Learning Approaches to Predict Patient Triage Outcomes in Hospital Emergency Departments', *Array*, 17(100281). DOI: <https://doi.org/10.1016/j.array.2023.100281>.
- Khorram-Manesh, A., Gray, L., Goniewicz, K., Cocco, A., Ranse, J., Phattharapornjaroen, P., Achour, N., Sørensen, J., Peyravi, M., Hertelendy, A.J., Kupietz, K., Bergholtz, J., and Carlström, E. (2024), "Care in emergencies and disasters: Can it be person-centered?", *Patient Education and Counseling*, 118, 108046, ISSN 0738-3991, <https://doi.org/10.1016/j.pec.2023.108046>.
- Pascale, F and Achour, N, Chaplin, E, Osei, G, Elhaj, H, (2025). Enhancing the resilience of cancer services in terms of hospital built environment reconfiguration in case of pandemics. *International Journal of Disaster Risk Reduction*, 116, 105140. DOI: <https://doi.org/10.1016/j.ijdr.2024.105140>.
- Pascale, F and Achour, N (2024) "Envisioning the sustainable and climate resilient hospital of the future", *Public Health*, 237 (December 2024), 435-442. DOI: <https://doi.org/10.1016/j.puhe.2024.10.028>.
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Crisis in Public Policy, August 2024. DOI: <https://doi.org/10.1002/rhc3.12314>.