



AMIR MOSAVI

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“SASPRO 2 is considered as a gate to the leadership in research. Through the essential training and well-funded research with exceptional professors at the host institutes, building one’s research group through further funding such as ERC can be facilitated.”

BIOGRAPHY

Dr. Amir Mosavi is a data scientist. He had been a research fellow at Oxford Brookes University, Queensland University of Technology, and Norwegian University of Science and Technology. He was the recipient of the Green-Talent Award, Alexander von Humboldt award, UNESCO Young Scientist Award, Alain Bensoussan Fellowship, Endeavour-Australia Leadership Award, European Research Consortium for Informatics and Mathematics Fellowship and Talented Young Scientist Award. Since 2019 he had been ranked among the top 2% scientists according to the Stanford University study. His research interests include machine learning and artificial intelligence.

PROJECT SUMMARY

Advancing Guidelines for RESponsible Machine Learning (RESML)

RESponsible Machine Learning (RESML) proposes a unique synergy between the social sciences and information sciences for shaping the future of machine learning modelling techniques.

RESML, through an innovative interdisciplinary approach bridges the discipline gap and integrates non-quantifiable data into models for the advancement of the accountable, responsible, interpretable, and bias-free machine learning models. Principal guidelines for ethical machine learning modelling are proposed and implemented for the first time. RESML contributes to developing new EU regulations toward customer policies and privacy in accessing responsible artificial intelligence, and further supports handling the societal challenges of Horizon 2020, the EU Green Deal, and the European Flagship Initiative by effectively regulating ethical machine learning.

PUBLICATIONS

1. Salcedo-Sanz, S., Ghamisi, P., Piles, M., Werner, M., Cuadra, L., Moreno-Martínez, A., Izquierdo-Verdiguier, E., Muñoz-Marí, J., **Mosavi**, A. and Camps-Valls, G., 2020. Machine learning information fusion in Earth observation: A comprehensive review of methods, applications and data sources. *Information Fusion*, 63, pp. 256-272
2. **Mosavi, Amir**, Mohammad Golshan, Bahram Choubin, Alan D. Ziegler, Shahram Khalighi Sigaroodi, Fan Zhang, and Adrienn A. Dineva. "Fuzzy clustering and distributed model for streamflow estimation in ungauged watersheds." *Scientific Reports* 11, no. 1 (2021): 1-14.
3. Choubin, Bahram, Ehsan Moradi, Mohammad Golshan, Jan Adamowski, Farzaneh Sajedi-Hosseini, and **Amir Mosavi**. "An ensemble prediction of flood susceptibility using multivariate discriminant analysis, classification and regression trees, and support vector machines." *Science of the Total Environment* 651 (2019): 2087-2096.
4. **Mosavi**, Amirhosein, Farzaneh Sajedi Hosseini, Bahram Choubin, Massoud Goodarzi, Adrienn A. Dineva, and Elham Rafiei Sardooi. "Ensemble boosting and bagging based machine learning models for groundwater potential prediction." *Water Resources Management* 35, no. 1 (2021): 23-37.

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