

Dr Francesco Fioranelli, PhD, SMIEEE, MIET, CEng, FHEA

Qualifications and appointments.

Associate Professor (UHD2)	TU Delft, NL	02/2023-present
Tenured Assistant professor	TU Delft, NL	11/2021 – 01/2022
Tenure Track Assistant Professor	TU Delft, NL	11/2019 – 10/2021
Lecturer (Assistant Professor, permanent post)	University of Glasgow	04/2016 – 10/2019
Research Associate (with Prof Hugh Griffiths)	University College London	02/2014 – 03/2016
PhD in Through-Wall Radar (with Prof Sana Salous)	Durham University, UK	11/2010 – 01/2014
Research PhD Intern	Fraunhofer IZM, Berlin	08/2011 – 10/2011
Postgraduate Research Intern	University of York	03/2010 – 09/2010
Master Degree in Telecom Engineering (110/110 summa cum laude, 2010), Università Politecnica delle Marche, Ancona, Italy		
Bachelor Degree in Telecom Engineering (110/110 summa cum laude, 2007), Università Politecnica delle Marche, Ancona, Italy		

List of publications.

Peer Reviewed Accepted Journal Papers (65)

- J1. S. Yuan, S. Zhu, F. **Fioranelli**, A. Yarovoy, "3-D Ego-motion Estimation using Multi-channel FMCW Radar", under review for *IEEE Transactions on Radar Systems*, Jan 2023.
- J2. W. Bouwmeester, F. **Fioranelli**, and A. Yarovoy, "Road Surface Condition Identification via H_aA Decomposition with mm-Wave Automotive Radar", under review for *IEEE Transactions on Radar Systems*, Jan 2023.
- J3. L. Ren, A. Yarovoy and F. **Fioranelli**, "Grouped People Counting Using mm-wave FMCW MIMO Radar", under review for *IEEE Internet of Things Journal*, Jan 2023.
- J4. I. Roldan, F. **Fioranelli**, A. Yarovoy, "Self-Supervised Learning for Enhancing Angular Resolution in Automotive MIMO Radars", under review for *IEEE Transactions on Vehicular Technology*, Aug 2022.
- J5. S. Yuan, F. **Fioranelli**, A. Yarovoy, "Vehicular Motion-based DOA Estimation with a Limited Amount of Snapshots for Automotive MIMO Radar", under review for *IEEE Transactions on Aerospace and Electronic Systems*, Aug 2022.

- J6. Z. Li, J. Le Kernec, Q. Abbasi, F. **Fioranelli**, S. Yang, O. Romain, "Radar-based Human Activity Recognition with Adaptive Thresholding towards Resource Constrained Platforms", accepted for *Scientific Reports*, Feb 2023.
- J7. S. Yang *et al.*, "The Human Activity Radar Challenge: benchmarking based on the 'Radar signatures of human activities' dataset from Glasgow University," accepted for *IEEE Journal of Biomedical and Health Informatics*, Jan 2023.
- J8. C. Ding, Z. Li, H. Chen, H. Hong, X. Zhu, F. **Fioranelli**, "Sparsity-based Human Activity Recognition with PointNet using a Portable FMCW Radar", accepted for *IEEE Internet of Things Journal*, Jan 2023.
- J9. A. Aubry, V. Carotenuto, A. De Maio, and F. **Fioranelli**, "Compatibility Assessment of Multistatic/Polarimetric Clutter Data with the SIRP Model", in *IEEE Transactions on Aerospace and Electronic Systems*, vol. 59, no. 1, pp. 359-374, Feb. 2023.
- J10. S. Yuan, P. Aubry, F. Fioranelli and A. G. Yarovoy, "A Novel Approach to Unambiguous Doppler Beam Sharpening for Forward-Looking MIMO Radar," in *IEEE Sensors Journal*, vol. 22, no. 23, pp. 23494-23506, Dec. 2022.
- J11. S. Zhu, R. G. Guendel, A. Yarovoy and F. **Fioranelli**, "Continuous Human Activity Recognition With Distributed Radar Sensor Networks and CNN-RNN Architectures," in *IEEE Transactions on Geoscience and Remote Sensing*, vol. 60, pp. 1-15, 2022, Art no. 5115215, July 2022.
- J12. P. Svenningsson, F. **Fioranelli**, A. Yarovoy and A. F. Martone, "A Bayesian Network for the Classification of Human Motion as Observed by Distributed Radar," in *IEEE Transactions on Aerospace and Electronic Systems*, vol. 58, no. 6, pp. 5661-5674, Dec. 2022.
- J13. Y. Zhao, A. Yarovoy and F. **Fioranelli**, "Angle-insensitive Human Motion and Posture Recognition Based on 4D imaging Radar and Deep Learning Classifiers," in *IEEE Sensors Journal*, vol. 22, no. 12, pp. 12173-12182, June 2022.
- J14. R. G. Guendel, F. Fioranelli and A. Yarovoy, "Distributed radar fusion and recurrent networks for classification of continuous human activities", *IET Radar, Sonar & Navigation*, April 2022.
- J15. Y. Yang, X. Yang, T. Sakamoto, F. **Fioranelli**, B. Li and Y. Lang, "Unsupervised Domain Adaptation for Disguised-Gait-Based Person Identification on Micro-Doppler Signatures," in *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 32, no. 9, pp. 6448-6460, Sept. 2022.
- J16. Shah, S.A., Tahir, A., Le Kernec, J., Zoha, A., and **Fioranelli**, F., "Data portability for activities of daily living and fall detection in different environments using radar micro-Doppler", *Neural Computing & Applications*, January 2022.

- J17. X. Li, Y. He, F. **Fioranelli** and X. Jing, "Semisupervised Human Activity Recognition With Radar Micro-Doppler Signatures," in *IEEE Transactions on Geoscience and Remote Sensing*, vol. 60, pp. 1-12, no. 5103112, 2022.
- J18. D. K. Iakovidis et al; "Roadmap on signal processing for next generation measurement systems", *Measurement Science and Technology*, IOP Publishing, vol. 33, no. 1, pp. 012002, November 2021.
- J19. H. Ji, C. Hou, Y. Yang, F. **Fioranelli** and Y. Lang, "A One-Class Classification Method for Human Gait Authentication Using Micro-Doppler Signatures," in *IEEE Signal Processing Letters*, vol. 28, pp. 2182-2186, Oct. 2021.
- J20. X. Li, Y. He, F. **Fioranelli**, X. Jing, A. Yarovoy and Y. Yang, "Human Motion Recognition With Limited Radar Micro-Doppler Signatures," in *IEEE Transactions on Geoscience and Remote Sensing*, vol. 59, no. 8, pp. 6586-6599, Aug. 2021.
- J21. Islam S. M. M., **Fioranelli** F., Lubecke V. M.; 'Can Radar Remote Life Sensing Technology Help Combat COVID-19?', *Frontiers in Communications and Networks*, vol. 2, 2021.
- J22. Yang, F., Xu, F., **Fioranelli**, F., Le Kerneec, J., Chang, S. and Long, T.; 'Practical Investigation of a MIMO radar system capabilities for small drones detection', *IET Radar, Sonar & Navigation*, April 2021.
- J23. Palama, R; **Fioranelli**, F.; Ritchie, M.; Inggs, M.; Lewis, S.; Griffiths, H.; 'Measurements and discrimination of drones and birds with a multi-frequency multistatic radar system'; *IET Radar, Sonar & Navigation*, April 2021.
- J24. R. G. Guendel, F. Fioranelli and A. Yarovoy, "Phase-based Classification for Arm Gesture and Gross-Motor Activities using Histogram of Oriented Gradients," *IEEE Sensors Journal*, vol. 21, no. 6, pp. 7918-7927, March 2021.
- J25. H. Li, A. Mehul, J. Le Kerneec, S. Z. Gurbuz and F. Fioranelli, "Sequential Human Gait Classification with Distributed Radar Sensor Fusion," *IEEE Sensors Journal*, vol. 21, no. 6, pp. 7590-7603, March 2021.
- J26. B. Zhou, Y. Li, J. Le Kerneec, S. Yang, F. **Fioranelli**, O. Romain, Z. Zhao; 'Simulation framework for activity recognition and benchmarking in different radar geometries'; *IET Radar, Sonar & Navigation*, March 2021.
- J27. L. Lan, J. Xu, G. Liao, Y. Zhang, F. **Fioranelli** and S. H.C., "Suppression of Mainbeam Deceptive Jammer with FDA-MIMO Radar," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 10, pp. 11584-11598, October 2020.
- J28. A. Shrestha, H. Li, J. L. Kerneec and F. **Fioranelli**, "Continuous human activity classification from FMCW radar with Bi-LSTM networks," *IEEE Sensors Journal*, vol. 20, no. 22, pp. 13607-13619, Nov 2020.
- J29. A. Turpin, G. Musarra, V. Kapitany, F. Tonolini, A. Lyons, I. Starshynov, F. Villa, E. Conca, F. **Fioranelli**, R. Murray-Smith, and D. Faccio, "Spatial images from temporal data," *Optica* 7, 900-905, 2020.
- J30. Li, X.; Li, Z.; **Fioranelli**, F.; Yang, S.; Romain, O.; Kerneec, J.L. Hierarchical Radar Data Analysis for Activity and Personnel Recognition. *Remote Sensing*, 2020, 12, 2237.
- J31. Ritchie, M., Capraru, R., **Fioranelli**, F.; 'DopNET: A Micro-Doppler Radar Data Challenge', *Electronics Letters*, vol. 56, no. 11, pp. 568-570, May 2020.
- J32. Citoni, B., **Fioranelli**, F., Imran, M., Abbasi, Q.; 'Internet of Things and LoRaWAN enabled future smart farming', *IEEE Internet of Things Magazine*, vol. 2, no. 4, pp. 14-19, December 2019.
- J33. Abdur Rahman, M.; Rashid, M.M.; Le Kerneec, J.; Philippe, B.; Barnes, S.J.; **Fioranelli**, F.; Yang, S.; Romain, O.; Abbasi, Q.H.; Loukas, G.; Imran, M.; 'A Secure Occupational Therapy Framework for Monitoring Cancer Patients' Quality of Life', *MDPI Sensors*, 19, 5258, November 2019.
- J34. Li, H., Shrestha, A., Heidari, H., Le Kerneec, J., **Fioranelli**, F.; 'Bi-LSTM network for multimodal continuous human activity recognition and fall detection', *IEEE Sensors*, vol. 20, no. 3, pp. 1191-1201, Feb. 2020.
- J35. Busin, V., Viora, L., King, G., Tomlinson, M., Le Kerneec, J., Jonsson, N., **Fioranelli**, F.; 'Evaluation of lameness detection using radar sensing in ruminants', *Veterinary Record*, 185, 572, Sep 2019.
- J36. Liang, X., Li, H., Wang, W., Liu, Y., Ghannam, R., **Fioranelli**, F., Heidari, H., 'Fusion of wearable and contactless sensors for intelligent gesture recognition', *Advanced Intelligent Systems*, doi:10.1002/aisy.201900088, Aug 2019.
- J37. **Fioranelli**, F., Shah, S. A., Li, H., Shrestha, A., Yang, S., Le Kerneec J.; 'Radar sensing for healthcare', Associate Editor invited paper for *Electronics Letters*, vol. 55, no. 19, pp. 1022-1024, September 2019.
- J38. Shah, S. A., **Fioranelli**, F.; 'RF Sensing Technologies for Assisted Daily Living in Healthcare: A Comprehensive Review', *IEEE Aerospace and Electronic Systems Magazine*, vol. 34, no. 11, pp. 26-44, Nov 2019.
- J39. Li, H., Liang, X., Shrestha, A., Liu, Y., Heidari, H., Le Kerneec, J., **Fioranelli**, F.; 'Hierarchical Sensor Fusion for Micro-Gestures Recognition with Pressure Sensor Array and Radar', *IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology*, vol. 4, no. 3, pp. 225-232, Sept 2020.
- J40. Patel, J., **Fioranelli**, F., Ritchie, M., Griffiths, H., 'Fusion of Deep Representations in Multistatic Radar Networks to Counteract the Presence of Synthetic Jamming', *IEEE Sensors*, vol. 19, no. 15, pp. 6362-6370, Aug 2019.
- J41. Ding, C., Hong, H., Zou, Y., Chu, H., Zhu, X., **Fioranelli**, F., Le Kerneec, J., Li, C., 'Continuous human motion recognition with a dynamic range-Doppler trajectory method based on FMCW radar', *IEEE Transactions on Geoscience and Remote Sensing*, vol. 57, no. 9, pp. 6821-6831, September 2019.
- J42. **Fioranelli**, F., Le Kerneec, J., Shah, S.A., 'Radar for Healthcare: recognising human activities and monitoring vital signs', *IEEE Potentials*, vol. 38, no. 4, pp. 16-23, July-Aug. 2019.
- J43. Le Kerneec, J., **Fioranelli**, F., Ding, C., Zhao, H., Sun, L., Hong, H., Lorandel, J., Romain, O., 'Radar signal processing for sensing in assisted living', *IEEE Signal Processing Magazine*, vol. 36, no. 4, pp. 29-41, July 2019.
- J44. Chen, Q., Yang, L., **Fioranelli**, F., Ritchie, M., Tan, B., Chetty, K., 'DopNet: A deep convolutional neural network to recognize armed and unarmed human targets', *IEEE Sensors*, vol. 19, no. 11, pp. 4160-4172, June 2019.
- J45. Li, H., Shrestha, A., Heidari, H., Le Kerneec, J., **Fioranelli**, F.; 'Magnetic and radar sensing for multimodal remote health monitoring', *IEEE Sensors*, vol. 19, no. 20, pp. 8979-8989, October 2019.
- J46. Lin, Y., Le Kerneec, J., Yang, S., **Fioranelli**, F., Romain, O., Zhao, Z.; 'Human activity classification with radar: optimisation and noise robustness with iterative convolutional neural networks followed by Random Forests', *IEEE Sensors*, vol. 18, no. 23, pp. 9669-9681, December 2018.

- J47. Patel, J., **Fioranelli**, F., and Anderson, D.; 'Review of radar classification and RCS characterisation techniques for small UAVs or drones', *IET Radar, Sonar & Navigation*, vol. 12, no. 9, pp. 911-919, August 2018.
- J48. Lan, L, Liao, G., Xu, J., Zhang, Y., and **Fioranelli**, F.; 'Suppression Approach to Main-beam Deceptive Jamming in FDA-MIMO Radar Using Nonhomogeneous Sample Detection', *IEEE Access*, vol. 6, pp. 34582-34597, June 2018.
- J49. Shrestha, A., Loukas, C., Le Kernec, J., **Fioranelli**, F., Busin, V., Jonsson, N., King, G., Tomlinson, M., Viora, L., and Voute, L.; 'Animal lameness detection with radar sensing', *IEEE Geoscience and Remote Sensing Letters*, vol. 15, no. 8, pp. 1189-1193, August 2018.
- J50. Li, H., Shrestha, A., Heidari, H. Le Kernec, J. and **Fioranelli**, F.; 'A multi-sensory approach for remote health monitoring of older people', *IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology*, vol. 2, no. 2, pp. 102-108, June 2018.
- J51. Angelov, A., Robertson, A., Murray-Smith, R., **Fioranelli**, F.; 'Practical classification of different moving targets using automotive radar and deep neural networks', *IET Radar, Sonar & Navigation*, vol. 12, no. 10, pp. 1082-1089, October 2018.
- J52. Li, G., Zhang, S., **Fioranelli**, F., and Griffiths, H.; 'Effect of sparse-aware analysis on dynamic hand gesture classification with radar micro-Doppler signatures', *IET Radar, Sonar & Navigation*, vol. 12, no. 8, pp. 815-820, Aug 2018.
- J53. Chen, Z. Li, G, **Fioranelli**, F., and Griffiths, H.; 'Personnel recognition and gait classification based on multistatic micro-Doppler signatures using deep convolutional neural networks', *IEEE Geoscience and Remote Sensing Letters*, vol. 15, no. 5, pp. 669-673, May 2018.
- J54. Patel, J. S., **Fioranelli**, F., Ritchie, M. and Griffiths, H.; 'Multistatic radar classification of armed vs unarmed personnel using neural networks', *Evolving Systems*, 2017, <https://doi.org/10.1007/s12530-017-9208-6>
- J55. Cippitelli, E., **Fioranelli**, F., Gambi, E., Spinsante, S.; 'Radar and RGB-Depth Sensors for Fall Detection: A Review', *IEEE Sensors*, vol. 17, no. 12, pp. 3585-3604, June 2017.
- J56. Ritchie, M., **Fioranelli**, F., Woodbridge, K., Griffiths, H., Daniel, L., De Luca, A., Hristov, S., Gashinova, M., Cherniakov, M.; 'Simultaneous data collection of small maritime targets using multistatic and forward scatter radar', *IET Radar, Sonar & Navigation*, vol. 11, no. 6, pp. 937-945, June 2017.
- J57. **Fioranelli**, F., Ritchie, M., Balleri, A., Griffiths, H.; 'Practical investigation of multiband mono- and bistatic radar signatures of wind turbines', *IET Radar, Sonar & Navigation*, vol. 11, no. 6, pp. 909-921, June 2017.
- J58. **Fioranelli**, F., Ritchie, M., Gürbüz, S., Griffiths, H.; 'Feature diversity for optimized human micro-Doppler classification using multistatic radar', *IEEE Transactions on Aerospace and Electronic Systems*, vol. 53, no. 2, pp. 640-654, April 2017.
- J59. Ritchie, M., **Fioranelli**, F., Borrion, H., Griffiths, H.; 'Multistatic micro-Doppler radar feature extraction for classification of unloaded/loaded micro-drones', *IET Radar, Sonar & Navigation*, vol. 11, no. 1, pp. 116-124, January 2017.
- J60. **Fioranelli**, F., Ritchie, M., Griffiths, H.; 'Centroid features for classification of armed/unarmed multiple personnel using multistatic human micro-Doppler', *IET Radar, Sonar & Navigation*, vol. 10, no. 9, pp. 1702-1710, December 2016.
- J61. **Fioranelli**, F., Ritchie, M., Balleri, A., Griffiths, H.; 'Experimental analysis of multistatic multiband radar signatures of wind turbines', *IET Radar, Sonar & Navigation*, vol. 10, no. 8, pp. 1400-1410, October 2016.
- J62. **Fioranelli**, F., Ritchie, M., Griffiths, H.; 'Analysis of polarimetric bistatic sea clutter using the NetRAD radar system', *IET Radar, Sonar & Navigation*, vol. 10, no. 8, pp. 1356-1366, October 2016.
- J63. **Fioranelli**, F., Ritchie, M., Griffiths, H.; 'Performance analysis of centroid and SVD features for personnel recognition using multistatic micro-Doppler', *IEEE Geoscience and Remote Sensing Letters*, vol. 13, no. 5, pp. 725-729, May 2016.
- J64. **Fioranelli**, F., Ritchie, M., Balleri, A., Griffiths, H.; 'Experimental analysis of multistatic wind turbine radar clutter statistics', *Electronics Letters*, vol. 52, no. 3, pp. 226-228, February 2016.
- J65. **Fioranelli**, F., Ritchie, M., Griffiths, H.; 'Personnel recognition based on multistatic micro-Doppler and Singular Value Decomposition features', *Electronics Letters*, vol. 51, no. 25, pp. 2143-2145, December 2015.
- J66. **Fioranelli**, F., Ritchie, M., Griffiths, H.; 'Aspect angle dependence and multistatic data fusion for micro-Doppler classification of armed/unarmed personnel', *IET Radar, Sonar & Navigation*, vol. 9, no. 9, pp. 1231-1239, December 2015.
- J67. **Fioranelli**, F., Ritchie, M., Borrion, H., Griffiths, H.; 'Classification of loaded/unloaded micro-Drones using multistatic radar', *Electronics Letters*, vol. 51, no. 22, pp. 1813-1815, October 2015.
- J68. **Fioranelli**, F., Ritchie, M., Griffiths, H.; 'Classification of unarmed/armed personnel using the NetRAD multistatic radar for micro-Doppler and Singular Value Decomposition features', *IEEE Geoscience and Remote Sensing Letters*, vol.12, no.9, pp.1933-1937, September 2015.
- J69. **Fioranelli**, F., Ritchie, M., Griffiths, H.; 'Multistatic human micro-Doppler classification of armed/unarmed personnel', *IET Radar, Sonar & Navigation*, vol.9, no.7, pp.857-865, August 2015.
- J70. **Fioranelli**, F., Ritchie, M., Balleri, A., Griffiths, H.; 'Measurement and analysis of multiband bistatic and monostatic radar signatures of wind turbines', *Electronics Letters*, vol.51, no.14, pp.1112-1113, July 2015.
- J71. **Fioranelli**, F., Salous, S., Ndip, I., Raimundo, X.; 'Through-The-Wall detection with gated FMCW signals using optimized patch-like and Vivaldi antennas', *IEEE Transactions on Antennas and Propagation*, vol.63, no.3, pp.1106-1117, March 2015.
- J72. **Fioranelli** F., Salous S., and Raimundo, X.; 'Frequency-Modulated Interrupted Continuous Wave as wall removal technique in through-the-wall imaging', *IEEE Transactions on Geoscience and Remote Sensing*, vol. 52, no. 10, pp. 6272-6283, October 2014.

Book Chapters (6) and Edited Books (2)

- BA. **Fioranelli**, F., Le Kernec, J., 'Advanced Classification Techniques for Drone Payloads', chapter 10 in *Radar Countermeasures for Unmanned Aerial Vehicles*, C. Clemente, F. Fioranelli, F. Colone and G. Li (Eds.), The IET Press, (In Production/Press).
- BB. **Fioranelli**, F., Le Kernec, J.; 'Contactless radar sensing for health monitoring', chapter 3 in *Engineering and Technology for Healthcare*, M. A. Imran, R. Ghannam and Q. H. Abbasi (Eds.), Wiley, (In Press).
- BC. Patel, J., **Fioranelli**, F., Ritchie, M., Griffiths, H.; 'Fusion of Deep Representations in Multistatic Radar Networks', chapter 10 in *Deep Neural Network Design for Radar Applications*, S. Z. Gurbuz (Ed.), The IET Press, (In Press).
- BD. Shrestha, A., Li, H., **Fioranelli**, F., Le Kernec, J., 'Multimodal sensing for assisted living using radar', chapter 6 in *Micro-Doppler Radar and its Applications*, F. Fioranelli, H. Griffiths, M. Ritchie and A. Balleri (Eds.), The IET Press, (In Press).
- BE. Griffiths, H.D., Ritchie, M. and **Fioranelli**, F.; 'Bistatic radar configuration for human body and limb motion detection and classification'; chapter 8 in *Radar for Indoor Monitoring; Detection, Localization and Assessment*, M. Amin (Ed.), CRC Press, 2017.
- BF. Ritchie, M., **Fioranelli** F., Borrion H.; 'Micro UAV Crime Prevention: Can we help Princess Leia?'; chapter 21 in *Preventing Crime Problems around the Globe through Research Innovations in the 21st Century*, B. Leclerc and E. Savona (Eds.), Springer, 2017.
- BA. *Radar Countermeasures for Unmanned Aerial Vehicles*, C. Clemente, F. Fioranelli, F. Colone and G. Li (Eds.), The IET Press, (In Production/Press).
- BB. *Micro-Doppler Radar and its Applications*, F. Fioranelli, H. Griffiths, M. Ritchie and A. Balleri (Eds.), The IET Press, (In Press).

Conference Proceedings (77)

- C1. Z. Guo, R. Guendel, A. Yarovoy, and F. **Fioranelli**, "Point transformer-based human activity recognition using high-dimensional radar point clouds", accepted for *IEEE Radar Conference 2023*, San Antonio, USA.
- C2. H. Haifawi, F. **Fioranelli**, A. Yarovoy, and R. van der Meer, "Drone Detection & Classification with Surveillance 'Radar On-The-Move' and YOLO", accepted for *IEEE Radar Conference 2023*, San Antonio, USA.
- C3. I. Roldan, L. Lamberti, F. **Fioranelli**, and A. Yarovoy, "Efficient Single-Snapshot DoA Estimation via Multi-Task Bayesian Compressive Sensing", accepted for *IEEE Radar Conference 2023*, San Antonio, USA.
- C4. N. B. Onat, I. Roldan, F. **Fioranelli**, A. Yarovoy, and Y. Aslan, "Efficient Embedded Element Pattern Prediction via Machine Learning: A Case Study with Planar Non-Uniform Sub-Arrays", accepted for *EuCAP 2023*, Florence, Italy.
- C5. N. Kruse, R. G. Guendel, F. **Fioranelli**, and A. Yarovoy, "Segmentation of Micro-Doppler Signatures of Human Sequential Activities using Rényi Entropy", accepted for *IET Radar Conference 2022*, Edinburgh, UK.
- C6. S. Yuan, F. Fioranelli, and A. Yarovoy, "Improved Direction Finding Accuracy for A Limited Number of Antenna Elements with Harmonic Characteristic Analysis", accepted for *European Radar Conference (EuRAD)*, Milan, September 2022.
- C7. I. Roldan, F. **Fioranelli** and A. Yarovoy, "Total Variation Compressive Sensing for Extended Targets in MIMO Radar," *2022 IEEE 12th Sensor Array and Multichannel Signal Processing Workshop (SAM)*, 2022, pp. 61-65.
- C8. Y. Zhao, R. G. Guendel, A. Yarovoy and F. **Fioranelli**, "Distributed Radar-based Human Activity Recognition using Vision Transformer and CNNs," *18th European Radar Conference (EuRAD)*, 2022, pp. 301-304.
- C9. I. Roldan, F. **Fioranelli** and A. Yarovoy, "Enhancing Angular Resolution Using Neural Networks in Automotive Radars," *18th European Radar Conference (EuRAD)*, 2022, pp. 58-61.
- C10. H. V. Sethuraman, A. Yarovoy and F. **Fioranelli**, "Classification of Unmanned Aerial Vehicles (UAVs) Carrying Payloads with Polarimetric Radar," *18th European Radar Conference (EuRAD)*, 2022, pp. 365-368.
- C11. W. Bouwmeester, F. **Fioranelli** and A. Yarovoy, "Dynamic Road Surface Signatures in Automotive Scenarios," *18th European Radar Conference (EuRAD)*, 2022, pp. 285-288.
- C12. Y. Han, A. Yarovoy and F. **Fioranelli**, "An Approach for Sleep Apnea Detection based on Radar Spectrogram Envelopes," *18th European Radar Conference (EuRAD)*, 2022, pp. 17-20.
- C13. S. Yuan, F. **Fioranelli** and A. Yarovoy, "An Approach for High-Angular Resolution Implementation in Moving Automotive MIMO Radar," *18th European Radar Conference (EuRAD)*, 2022, pp. 449-452.
- C14. F. Corradi and F. **Fioranelli**. "Radar Perception for Autonomous Unmanned Aerial Vehicles: a Survey", in *System Engineering for constrained embedded systems (DroneSE and RAPIDO)*, Association for Computing Machinery, New York, NY, USA, 14–20, 2022.
- C15. X. Yang, R. G. Guendel, A. Yarovoy and F. **Fioranelli**, "Radar-based Human Activities Classification with Complex-valued Neural Networks," *2022 IEEE Radar Conference (RadarConf22)*, 2022, pp. 1-6.
- C16. R. G. Guendel, F. **Fioranelli** and A. Yarovoy, "Evaluation Metrics for Continuous Human Activity Classification Using Distributed Radar Networks," *2022 IEEE Radar Conference (RadarConf22)*, 2022, pp. 1-6.
- C17. V. Carotenuto, A. Aubry, A. De Maio and F. **Fioranelli**, "Multivariate Polarimetric Bistatic Clutter Statistical Analysis," *2022 IEEE Radar Conference (RadarConf22)*, 2022, pp. 1-6.
- C18. P. Svenningsson, N. Kruse, F. **Fioranelli** and A. Yarovoy, "Calibration of Cognitive Classification Systems for Radar Networks for Increased Reliability," *2022 IEEE Radar Conference (RadarConf22)*, 2022, pp. 1-6.
- C19. F. **Fioranelli** and J. Le Kernec, "Radar sensing for human healthcare: challenges and results," invited paper for *IEEE Sensors*, 2021, pp. 1-4.

- C20. P. Svenningsson, F. **Fioranelli** and A. Yarovoy, "Domain adaptation for target classification using micro-Doppler spectra in radar networks," *2021 IEEE 24th International Conference on Information Fusion (FUSION)*, pp. 1-8.
- C21. L. Pallotta, M. Cauli, C. Clemente, F. Fioranelli, G. Giunta, and A. Farina, "Classification of micro-Doppler radar hand-gesture signatures by means of Chebychev moments", presented at *IEEE MetroAeroSpace*, Naples, Jun 2021.
- C22. C. Clemente, L. Pallotta, C. Ilioudis, F. **Fioranelli**, G. Giunta, and A. Farina, "Chebychev moments based Drone Classification, Recognition and Fingerprinting", presented at *International Radar Symposium*, Bonn, Jun 2021.
- C23. R. G. Guendel, M. Unterhorst, E. Gambi, F. **Fioranelli** and A. Yarovoy, "Continuous human activity recognition for arbitrary directions with distributed radars," *2021 IEEE Radar Conference*, 2021, pp. 1-6.
- C24. P. Svenningsson, F. **Fioranelli** and A. Yarovoy, "Radar-PointGNN: Graph Based Object Recognition for Unstructured Radar Point-cloud Data," *2021 IEEE Radar Conference*, 2021, pp. 1-6.
- C25. Z. Li, J. Le Kerneec, F. **Fioranelli**, O. Romain, L. Zhang and S. Yang, "An LSTM Approach to Short-range personnel recognition using Radar Signals," *2021 IEEE Radar Conference*, 2021, pp. 1-6.
- C26. D. Gusland, J. M. Christiansen, B. Torvik, F. **Fioranelli**, S. Z. Gurbuz and M. Ritchie, "Open Radar Initiative: Large Scale Dataset for Benchmarking of micro-Doppler Recognition Algorithms," *2021 IEEE Radar Conference*, 2021, pp. 1-6.
- C27. H. Jiang, F. **Fioranelli**, S. Yang, O. Romain and J. Le Kerneec, "Human activity classification using radar signal and RNN networks," IET International Radar Conference (IET IRC 2020), 2020, pp. 1595-1599.
- C28. X. Li, F. **Fioranelli**, S. Yang, O. Romain and J. Le Kerneec, "Radar-based hierarchical human activity classification," IET International Radar Conference (IET IRC 2020), 2020, pp. 1373-1379, doi: 10.1049/icp.2021.0566.
- C29. F. Yang, J. Le Kerneec, F. **Fioranelli** and Q. Liu, "Shape feature aided target detection method for micro-drone surveillance radar," IET International Radar Conference (IET IRC 2020), 2020, pp. 390-395.
- C30. B. Zhou, J. Le Kerneec, S. Yang, F. **Fioranelli**, O. Romain and Z. Zhao, "Interferometric radar for activity recognition and benchmarking in different radar geometries," IET International Radar Conference (IET IRC 2020), 2020, pp. 1515-1520.
- C31. Z. Li, F. **Fioranelli**, S. Yang, L. Zhang, O. Romain, Q. He, G. Cui, J. Le Kerneec; "Multi-domains based human activity classification in radar," IET International Radar Conference (IET IRC 2020), 2020, pp. 1744-1749.
- C32. J. Guo, C. Shu, Y. Zhou, K. Wang, F. **Fioranelli**, O. Romain, J. Le Kerneec; "Complex field-based fusion network for human activities classification with radar," IET International Radar Conference (IET IRC 2020), 2020, pp. 68-73.
- C33. F. **Fioranelli**, O. Krasnov, Y. Cai, A. Yarovoy, J. Yun, and D. Anderson, "Improving the simulations of radar signatures of small drone", presented at *NATO MSG-SET-183 Specialists' Meeting on Drone Detectability: Modelling the Relevant Signature*, April 2021.
- C34. S. Li, M. Jia, J. L. Kerneec, S. Yang, F. **Fioranelli** and O. Romain, "Elderly Care: Using Deep Learning for Multi-Domain Activity Classification," *2020 International Conference on UK-China Emerging Technologies (UCET)*, Glasgow, United Kingdom, 2020, pp. 1-4.
- C35. M. Jia, S. Li, J. L. Kerneec, S. Yang, F. **Fioranelli** and O. Romain, "Human activity classification with radar signal processing and machine learning," *2020 International Conference on UK-China Emerging Technologies (UCET)*, Glasgow, United Kingdom, 2020, pp. 1-5.
- C36. R. Guendel, F. **Fioranelli**, A. Yarovoy, "Derivative Target Line (DTL) for Continuous Human Activity Detection and Recognition", presented at *2020 IEEE Radar Conference*, Florence, Italy, 21-25 September 2020
- C37. H. Li, J. Le Kerneec, A. Mehul, S. Z. Gurbuz, F. **Fioranelli**, "Distributed Radar Information Fusion for Gait Recognition and Fall Detection", presented at *2020 IEEE Radar Conference*, Florence, Italy, 21-25 September 2020
- C38. C. Bennett, M. Jahangir, F. **Fioranelli**, B. Ahmad, J. Le Kerneec, "Use of Symmetrical Peak Extraction in Drone Micro-Doppler Classification for Staring Radar", presented at *2020 IEEE Radar Conference*, Florence, Italy, 21-25 September 2020
- C39. J. Yun, D. Anderson, F. **Fioranelli**, "Parametric Investigation on Simulated Staring FMCW Radar for Anti-Drone Swarms", presented at *2020 IEEE Radar Conference*, Florence, Italy, 21-25 September 2020
- C40. Gurbuz, S. Z., Rahman, M. M., Kurtoglu, E., Macks, T., **Fioranelli** F., "Cross-frequency training with adversarial learning for radar micro-Doppler signature classification," Proc. SPIE 11408, Radar Sensor Technology XXIV, 114080A (11 May 2020);
- C41. Garcia Doherty, H., Cifola, L., Harmanny, R., **Fioranelli**, F.; 'Unsupervised learning using generative adversarial networks on micro-Doppler spectrograms', presented at *16th European Radar Conference (EURAD)*, Paris, France, October 2019.
- C42. Zhao, Y., Zhang, X., **Fioranelli**, F.; 'Initial results of radar-based classification of commercial drone carrying small payloads', presented at *IEEE International Radar Conference*, Toulon, France, September 2019.
- C43. Shah, S.A., **Fioranelli**, F.; 'Human activity recognition: preliminary results for dataset portability using FMCW radar', presented at *IEEE International Radar Conference*, Toulon, France, September 2019.
- C44. Yang, S., Le Kerneec, J., **Fioranelli**, F.; 'Human activities classification in a complex space using raw radar data', presented at *IEEE International Radar Conference*, Toulon, France, September 2019.
- C45. Palamà, R., **Fioranelli**, F., Ritchie, M., Inggs, M., Lewis, S., Griffiths, H., 'Measurements of multistatic X&L band radar signatures of UAVs', presented at *IEEE International Radar Conference*, Toulon, France, September 2019.
- C46. Sim, J., Jahangir, M., **Fioranelli**, F., Baker, C., Dale, H., 'Effective ground-truthing of supervised machine learning for drone classification', presented at *IEEE International Radar Conference*, Toulon, France, September 2019
- C47. Li, X., Li, S., Li, H., **Fioranelli**, F.; 'Accuracy Evaluation on the Respiration Rate Estimation using Off-the-shelf Pulse-Doppler Radar', presented at *IEEE International Microwave Biomedical Conference (IMBioC2019)*, Nanjing, China, May 2019.

- C48. Le Kernec, J., **Fioranelli, F.**, Ding, C., Zhao, H., Sun, L., Hong, H., Romain, O., Lorandel, J.; 'Radar Sensing in Assisted Living: An Overview', presented at *IEEE International Microwave Biomedical Conference (IMBioC2019)*, Nanjing, China, May 2019.
- C49. Li, H., Shrestha, A., Heidari, H., Le Kernec, J., **Fioranelli, F.**; 'Activities Recognition and Fall Detection in Continuous Data Streams Using Radar Sensor', presented at *IEEE International Microwave Biomedical Conference (IMBioC2019)*, Nanjing, China, May 2019.
- C50. **Fioranelli, F.**, Li, H., Le Kernec, J., Busin, V., Jonsson, N., King, G., Tomlinson, M., Viora, L.; 'Radar-based Evaluation of Lameness Detection in Ruminants: Preliminary Results', presented at *IEEE International Microwave Biomedical Conference (IMBioC2019)*, Nanjing, China, May 2019.
- C51. Chen, Z., Li, G., **Fioranelli, F.**, Griffiths, H.; 'Dynamic Hand Gesture Classification Based on Multistatic Radar Micro-Doppler Signatures Using Convolutional Neural Network', presented at *IEEE Radar Conference*, Boston, MA, USA, Apr 2019.
- C52. Chen, Q., Liu, Y., **Fioranelli, F.**, Ritchie, M., Chetty, K.; 'Eliminate Aspect Angle Variations for Human Activity Recognition Using Unsupervised Deep Adaptation Network', presented at *IEEE Radar Conference*, Boston, MA, USA, Apr 2019.
- C53. **Fioranelli, F.**, Patel, J., Gürbüz, S. Z., Ritchie, M., Griffiths, H.; 'Multistatic Human Micro-Doppler Classification with Degraded/Jammed Radar Data', presented at *IEEE Radar Conference*, Boston, MA, USA, Apr 2019.
- C54. Shrestha, A., Murphy, C., Johnson, I., Anbulselvam, A., **Fioranelli, F.**, Le Kernec, J., Gurbuz, S. Z.; 'Cross-Frequency Classification of Indoor Activities with DNN Transfer Learning', presented at *IEEE Radar Conference*, Boston, MA, USA, Apr 2019.
- C55. Patel, J., Al-Ameri, C., **Fioranelli, F.**, Anderson, D.; 'Multi-time frequency analysis and classification of a micro drone carrying payloads using multistatic radar', presented at *IET International Conference 2018*, Nanjing.
- C56. Li, J., Shrestha, A., Le Kernec, J., **Fioranelli, F.**; 'From Kinect skeleton data to hand gesture recognition with radar', presented at *IET International Radar Conference 2018*, Nanjing.
- C57. Li, H., Shrestha, A., **Fioranelli, F.**, Le Kernec, J., Heidari, H.; 'FMCW radar and inertial sensing synergy for assisted living', presented at *IET International Radar Conference 2018*, Nanjing.
- C58. Shrestha, A., Li, H., **Fioranelli, F.**, Le Kernec, J.; 'Activity recognition with cooperative radar systems at C and K band', presented at *IET International Radar Conference 2018*, Nanjing.
- C59. **Fioranelli, F.**, Patel, J., Horne, C., Palamà, R., Griffiths, H., Danoon, L., Brown, A.; 'Experimental measurements of radar signatures of large wind turbine', presented at *IET International Radar Conference 2018*, Nanjing.
- C60. Li, H., Shrestha, A., **Fioranelli, F.**, Le Kernec, J., Heidari, H.; 'Hierarchical classification on multimodal sensing for human activity recognition and fall detection', presented at *IEEE Sensors 2018*, New Delhi.
- C61. Le Kernec, J., **Fioranelli, F.**, Yang, S., Lorandel, J., Romain, O.; 'Radar for assisted living in the context of Internet of Things for Health and Beyond', presented at 2018 26th IEEE International Conference on Very Large Scale Integration, Verona, Italy.
- C62. Rizwan, A., Arshad, K., **Fioranelli, M.**, Imran, A., Imran, M. A.; 'Mobile internet activity estimation and analysis at high granularity: SVR model approach', presented at 2018 29th IEEE Annual International Symposium on Personal, Indoor, and Mobile Radio Communications, Bologna, Italy.
- C63. Loukas, C., **Fioranelli, F.**, Le Kernec, J., Yang, S.; 'Activity classification using raw range and I&Q radar data with long short term memory layers', presented at *IEEE DASC/PiCom/DataCom/CyberSciTech*, Athens, Greece, August 2018, pp. 441-445.
- C64. Al-Mashhadani, W., Brown, A., Danoon, L., Horne, C., Palama', R., Griffiths, H., Patel, J., **Fioranelli, F.**; 'Measurements and modelling of radar signatures of large wind turbine using multiple sensors', presented at *IEEE Radar Conference 2018*, Oklahoma City.
- C65. Li, H., Shrestha, A., **Fioranelli, F.**, Le Kernec, J., Heidari, H., Pepa, M., Cippitelli, E., Gambi, E. and Spinsante, S.; 'Multisensory Data Fusion for Human Activities Classification and Fall Detection', presented at *IEEE Sensors 2017*, Glasgow, UK, 30 Oct - 01 Nov 2017.
- C66. Shrestha, A., Le Kernec, J., **Fioranelli, F.**, Cippitelli, E., Gambi, E. and Spinsante, S.; 'Feature Diversity for Fall Detection and Human Indoor Activities Classification Using Radar Systems', presented at *International Conference on Radar Systems 2017*, Belfast, UK, 23-26 Oct 2017.
- C67. Shrestha, A., Le Kernec, J., **Fioranelli, F.**, Marshall, J.F. and Voute, L.; 'Gait Analysis of Horses for Lameness Detection with Radar Sensors', presented at *International Conference on Radar Systems 2017*, Belfast, UK, 23-26 Oct 2017.
- C68. **Fioranelli, F.**, Ritchie, M., Griffiths, H.; 'Bistatic human micro-Doppler signatures' for classification of indoor activities, presented at *2017 IEEE Radar Conference* in May 2017, Seattle, WA.
- C69. Palamà, R., Ritchie, M., Miceli, W., Griffiths, H., **Fioranelli, F.**, Sandenbergh, S., Inggs, M.; 'Correlation Analysis of simultaneously collected bistatic and monostatic sea clutter', presented at *2017 IEEE Radar Conference* in May 2017, Seattle, WA.
- C70. S. Alhuwaimel *et al.*, "First measurements with NeXtRAD, a polarimetric X/L Band radar network," presented at *2017 IEEE Radar Conference* in May 2017, Seattle, WA.
- C71. Ritchie, M., **Fioranelli, F.**, Griffiths, H., Torvik, B.; 'Monostatic and bistatic radar measurements of birds and micro-drone', presented at *2016 IEEE Radar Conference* in May 2016, Philadelphia, PA.
- C72. Hoffmann, F., Ritchie, M., **Fioranelli, F.**, Charlish, A., Griffiths, H.; 'Micro-Doppler based detection and tracking of UAVs with multistatic radar', presented at *2016 IEEE Radar Conference* in May 2016, Philadelphia, PA.
- C73. Palamà, R., **Fioranelli, F.**, Ritchie, M., Griffiths, H., Greco, M. S., Gini, F. 'Co-polar calibration of multistatic radar in the presence of multipath', presented at *2016 IEEE Radar Conference* in May 2016, Philadelphia, PA.

- C74. **Fioranelli, F.**, Ritchie, M., Griffiths, H., Balleri, A.; 'Analysis of multiband monostatic and bistatic radar signatures of wind turbines', *2015 IEEE Radar Conference*, pp. 277-282, Johannesburg, RSA, 27-30, October 2015.
- C75. Ritchie, M., **Fioranelli, F.**, Griffiths, H., Torvik, B.; 'Micro-drone RCS analysis', *2015 IEEE Radar Conference*, pp. 452-456, Johannesburg, RSA, 27-30, October 2015.
- C76. Ritchie, M., **Fioranelli, F.**, Woodbridge, K., Griffiths, H., Daniel, L., De Luca, A., Hristov, S., Gashinova, M., Cherniakov, M.; 'Simultaneous data collection of small maritime targets using multistatic and forward scatter radar', *2015 IEEE Radar Conference*, pp. 203-208, Johannesburg, RSA, 27-30, October 2015.
- C77. Inggs, M., Coetzee, S., Griffiths, H., **Fioranelli, F.**, Ritchie, M., Woodbridge, K.; 'Database design for an experimental, dual band, polarimetric radar', *2015 IEEE Radar Conference*, pp. 417-421, Johannesburg, RSA, 27-30, October 2015.
- C78. **Fioranelli, F.**, Ritchie, M., Griffiths, H.; 'Analysis of polarimetric multistatic human micro-Doppler classification of armed/unarmed personnel', *2015 IEEE Radar Conference RadarCon*, pp.0432-0437, Arlington, VA, May 2015.
- C79. Inggs, M., Griffiths, H., **Fioranelli, F.**, Ritchie, M., Woodbridge, K.; 'Multistatic Radar: system requirements and experimental validation', *2014 International Radar Conference*, Lille, France, October 2014.
- C80. Raimundo, X., Salous, S., **Fioranelli, F.**; 'Frequency modulated interrupted continuous wave signals in different radar imaging applications', *XXXIth URSI General Assembly and Scientific Symposium (URSI GASS)*, Beijing, China, August 2014.
- C81. **Fioranelli, F.**, Salous, S., Ndip, I.; 'Optimized patch-like antennas for through the wall radar imaging and preliminary results with frequency modulated interrupted continuous wave', *International Symposium on Signals, Systems, and Electronics (ISSSE)*, Potsdam, Germany, October 2012.

Patents (2)

- P1. "Radar-based road surface conditions identification based on H-alpha-A polarimetric properties with mm-wave automotive radar", submitted as NL patent, Dec 2022.
- P2. "Method and device for human activity classification using radar micro-Doppler and phase", Patent application EP21306742 submitted to EU and US patent office and under review, 2022.
- P3. "Device for characterising the actimetry of a subject in real time / Dispositif de caractérisation de l'actimétrie d'un sujet en temps reel", O. Romain, J. Le Kernec, J. Lorandel, and F. **Fioranelli**, Patent WO 2021/069518 A1, 15 April 2021.

Open Datasets (2)

- D1. Guendel, R.G., Unterhorst, M., **Fioranelli, F.**, Yarovoy, A.. 'Dataset of continuous human activities performed in arbitrary directions collected with a distributed radar network of five nodes', 4TU.ResearchData, 2021. Available from DOI: <https://doi.org/10.4121/16691500.v3>
- D2. **Fioranelli, F.**, Shah, S. A., Li, H., Shrestha, A., Yang, S. and Le Kernec, J.; *Radar signatures of human activities*, Open dataset, University of Glasgow, 2019, Available at: <https://researchdata.gla.ac.uk/848>.

Scholarly/Educational publications (2)

1. D. J. Bremner, J. Le Kernec, F. **Fioranelli**, V. H. Morgan Dale and P. Rattadilok, "The use of multiple-choice questions in 3rd-year electronic engineering assessment: A case study," *2018 IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE)*, 2018, pp. 887-892.
2. F. **Fioranelli**, S. Zhu and I. Roldan, "Benchmarking Classification Algorithms for Radar-Based Human Activity Recognition," in *IEEE Aerospace and Electronic Systems Magazine*, vol. 37, no. 12, pp. 37-40, 1 Dec. 2022.

List of projects and funding.

Awarded projects

At TU Delft.

Received **>€2.5M** of research funding as Assistant Professor at TU Delft within the period 11/2019-present.

-NWO OTP SMARTER Strategic Monitoring of Atmospheric Threats using Enhanced Radar	€753k – awarded 2022
-TU Delft Climate Action Programme seed fund call	€15k - awarded 2022
-“Visiting Professor Programme” scholarship Rome La Sapienza University	€5k – awarded 2022
-Industrial research project (Huawei Sweden) on radar for healthcare applications	€224k – awarded 2022
-NWO Cooperation with Japan Grant	€2k – awarded 2022
-Industrial research project (NXP) on AI in SLAM & tracking for automotive radar	\$300k – awarded 2021
-NWO KLEIN project ‘RAD-ART’ on temporal networks applied on radar data	€356k – awarded 2021
-2 x industrial research PhD projects (Huawei Sweden) on automotive radar	€730k – awarded 2020
-US ARL research project (W911NF-2020-185) on distributed adaptive radar	\$99k – awarded 2020
-Delft Health Initiative seed fund	€10k – awarded 2020
-Delft Safety & Security Institute seed fund	€7k – awarded 2020

At the University of Glasgow.

Received **>£600k** of research funding as independent PI at University of Glasgow in the period 04/2016-10/2019.

-US ONR-G Research Grant (N62909-19-1-2073) on radar signatures of UAVs’ swarms (PI)	\$240k – awarded 06/2019
-Royal Society of Edinburgh Travel Grant with Xidian University (PI)	£11.5k – awarded 04/2019
-BBSR Ltd consultancy for DASA (UK MoD) project (PI)	£6.4k – awarded 01/2019
-CENSIS R&D Projects with Angelmonitors LTD (PI)	£46k – awarded 12/2018
-US AFRL ‘Window of Science’ travel grant	\$2.9k – awarded 08/2018
-Interface Voucher for industrial collaborations with Angelmonitors LTD (PI)	£5k – awarded 06/2018
-UK Horse Betting Levy Board small projects (co-I)	£10k – awarded 03/2018
-EPSRC Engineering for a Prosperous Nation Award (PI), EP/R041679/1	£250k – awarded 05/2018
-Industrial PhD scholarship from Leonardo UK (PI)	£43k – awarded 10/2017
-PetPlan Trust Pump Primer Grant (PI)	£10k – awarded 10/2017
-EPSRC SUPERGEN Wind Hub Flexible Funding 2 (PI)	£37k – awarded 07/2017
-IPDF (International Partnership Development Fund) for collaboration with University of Cape Town (PI) and University Alabama Tuscaloosa	£3k in July 2016, £3k in July 2017, and £1.8k in Oct 2018

List of supervised PhD candidates.

PhD supervised as daily supervisor at TU Delft (listed in <http://radar.tudelft.nl/People/bio.php?id=661>).

1. Mujtaba Hassan
2. Simin Zhu
3. Nicolas Kruse
4. Sen Yuan
5. Ignacio Roldan Montero
6. Wietse Bouwmeester
7. Ronny Gündel

PhD and postdoc (co-)supervised at the University of Glasgow.

1. Konstantina Linardopoulou
2. Zhenghui Li
3. Jarez Patel
4. Dr Haobo Li (former supervised PhD, graduated in 2021)
5. Dr Aman Shrestha (former supervised PhD, graduated in 2021)
6. Dr Joongsup Yun (former supervised postdoc in 2019-2022, currently at Cranfield University, UK)
7. Dr Syed Aziz Shah (former supervised postdoc in 2018-2019, currently at Coventry University, UK)

Contributions to education.

Courses at TU Delft.

Courses at TU Delft.

- Radar Systems* (ET4175): 3 lecture slots delivery & exam (2020).
- Linear Circuits A & B* (EE1C11-EE1C21): instructor and exercise tutor (since 2020-21).
- System Engineering* (EE4C02-EE4C11): project tutor (since 2019-20).
- Object Classification with Radar* (EE4675): instructor in newly developed & delivered MSc course.
- ML for EE Applications* (EE4C12): project tutor, newly developed course in 2022.

Student supervision & assessment at TU Delft.

-18 MSc students directly supervised for thesis projects since appointment (13 graduated)

1. Mr Lin Wan
2. Ms Harinee Visvanathan Sethuraman
3. Ms Yichuang Han
4. Mr Simin Zhu
5. Ms Ximei Yang
6. Mr Yubin Zhao
7. Mr Hani Haifawi
8. Mr Lucas Lamberti
9. Mr Liyuan Ren
10. Ms Bet Rufas Talamas
11. Mr Zhongyuan Guo
12. Mr Georgios Tsakirakis
13. Mr Max Cortes Peralta

-6 Bachelor students supervised for BAP final project (in 2020)

-1 Bachelor student in honour programme

-Member of graduation committee at master and bachelor level (>18 students).

Courses and duties at University of Glasgow.

- Developed & coordinated *Communication Circuits Design* Bachelor Course, 2018-2019, ~150 students
- Developed & coordinated *Circuits Analysis & Design* Bachelor Course, 2017-2019, ~400 students
- Developed & coordinated *Electrical Circuits Analysis* Bachelor Course, 2017-2018, ~250 students
- Supervised over 25 thesis projects at University of Glasgow at BEng, MSc, and MEng level; MEng projects were in collaborations with industrial partners (Thales NL, Aveillant-Thales, NXP Glasgow, ONERA, Leonardo)
- Exam & Assessment Coordinator for Glasgow College UESTC* (dual degree programme between the University of Glasgow and the University of Electronic Science and Technology of China, Chengdu, for over 30 courses)

Committees duties at TU Delft.

-Member of EE-CE Board of Examiners since July 2020

-EWI education committees:

- New BSc development committee (specifically contributing to the development of the learning line Telecom)
- AI in EE-CE education (contribution to the development of new course and projects related to radar profiles in WICOS & SS tracks)

-Member of ME Department COM-COM, Communication Committee, and ME ICT Committee

-Represented ME Department at Sector Plan Committee Visitation and Midterm Research Review Visitation.

Personal Development.

-TUD English language qualification passed with C2 score (Dec 2019)

-UTQ qualification waived for equivalent UK FHEA qualification (Dec 2019) – this was acquired as part of 2years Glasgow PGCAP (PostGraduate Certificate in Academic Practice)

-ME Com-com Writing for Social Media training workshop completed

-TUD Tenure Track Development Course (2021) & Associate Prof Development Course (2022) completed

-TUD Dutch Language Courses Elementary 1-2 completed (grade 9&10)

Esteem.

- IET Chartered Engineer **CEng** (2017); Fellow of UK Higher Education Academy **FHEA** (2018); Senior Member **SMIEEE** (2019).
- **Associate Editor** for newly established IEEE Transactions on Radar Systems, IEEE Sensors, IET Radar Sonar & Navigation; former AE for IET Electronic Letters.
- **Conferences.** Track Chair (IEEE Radar Atlanta 2021, New York 2022); Conference special sessions organiser and contributor (IEEE Radar Seattle 2017, Toulon 2019, Florence 2020, Atlanta 2021, New York 2022; IET Nanjing 2018 & Hainan 2021; EURAD 2020, 2021, 2022); Tutorial/workshop speaker (IEEE Radar Toulon 2019, Florence 2020, EURAD 2020, Atlanta 2021, EURAD 2021, EURAD 2022, Edinburgh 2022).
- Elected to **IEEE AESS Radar System Panel** (11/2022).
- **Reviewer & examiner** for conference and journal publications (IEEE TAES; IEEE TGRS and GRSL; IEEE Sensors; IEEE TMTT; IEEE Journal of Translational Engineering in Health and Medicine; IET RSN; CRC Books; IEEE and IET Radar Conferences since 2016); funding bodies (Full Member of the UK Engineering and Physical Science Research Council Peer Review College, British Council Institutional Links grants, Dutch Research Organisation NWO, Flemish Research Organisation Review College).
- **IEEE Benelux Section secretary** (January 2023-January 2025).
- **PhD defences as committee/examiner:**
 1. Wei Wei; University of Birmingham, 10/2017;
 2. Mark Humphreys; University of Glasgow, 03/2019;
 3. Alessio Izzo; University of Strathclyde, 04/2020;
 4. Marcel De Moraes; Heriot-Watt University, Edinburgh, 07/2020;
 5. Giulia Sacco; Sapienza University of Rome, 11/2020;
 6. Safiah Zulkifli; Cranfield University UK, 05/2021;
 7. Alessandro Davoli; University of Bologna 11/2021;
 8. Gianluca Ciattaglia; Università Politecnica delle Marche, 01/2022;
 9. Shahrzad Sabery; University of Birmingham, 04/2022.
- **Awards:**
 - Co-recipient of 2017 Premium Award for Best Paper in *IET Radar, Sonar & Navigation*: Fioranelli, F., Ritchie, M., Griffiths, H.; 'Centroid features for classification of armed/unarmed multiple personnel using multistatic human micro-Doppler', vol. 10(9), pp. 1702-1710;
 - Best Paper Award for Fioranelli, F. et al. 'Experimental measurements of radar signatures of large wind turbine', presented at IET International Conference 2018, Nanjing;
 - Excellent Paper Award for 'Multi-time frequency analysis and classification of a micro drone carrying payloads using multistatic radar', presented at IET International Conference 2018, Nanjing;
 - Runner Up for 'Classification of micro-Doppler radar hand-gesture signatures by means of Chebychev moments' presented at IEEE Metro Aerospace June 2021, and for 'Enhancing Angular Resolution Using Neural Networks in Automotive Radars' presented at EURAD 2021.
- **Invited talks:** Tsinghua University, Beijing, 09/2017, host Prof Gang Li; University of Cergy-Pontoise, 12/2017, host Prof Olivier Romain; University of Glasgow Singapore, 03/2018, host Dr Minghui Li; University of Xidian, Xian, 04/2018, host Dr Jingwei Xu; Middlesex University, London, 06/2018, host Dr Huan Nguyen; US AFRL, Dayton OH, 08/2018, host Dr Paul Sotirellis; NUDT Changsha, China, 05/2019, host Dr Yong Yang; Lahore University, Pakistan, 10/2020, host Dr Wasif Kahn; IEEE Sensors Chapter of Italy, May 2021, organiser: Dr Emanuele Cardillo; UESTC Chengdu, 12/2022, host Prof Guolong Cui.
-Invited **class lectures:** Tampere University, Finland, Nov 2020; Università Politecnica delle Marche, Ancona, Italy, May&Dec 2020, Dec 2021.
- **Memberships and mix service tasks.**
-Former Co-chair of MODEST (Modern Trends in Short Range Sensing) focus group within **EMSIG UK Radar Society**, with Prof M. Gashinova, University of Birmingham, UK.
-Selected for prestigious Scottish Crucible training programme for Early Career Researchers, Royal Society of Edinburgh, 2018 edition.