


PERSONAL INFORMATION

Emir Turajlić



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Gender Male | Date of birth 22/08/1977 | Nationality Bosna and Herzegovina

JOB POSITION

Associate Professor with University of Sarajevo, Faculty of Electrical Engineering

EMPLOYMENT HISTORY

2019- Associate Professor

University of Sarajevo – Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina.

2014-2019. Assistant Professor

University of Sarajevo – Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina.

EDUCATIONAL BACKGROUND

2007. Doctor of Philosophy

EQF level 8

Brunel University – United Kingdom

▪ Research area: digital signal processing

PERSONAL SKILLS

Mother tongue(s) Bosnian

Other language(s)

|         | UNDERSTANDING |         | SPEAKING           |                   | WRITING |
|---------|---------------|---------|--------------------|-------------------|---------|
|         | Listening     | Reading | Spoken interaction | Spoken production |         |
| English | C2            | C2      | C2                 | C2                | C2      |

Upišite naziv sertifikata o znanju jezika. Unesite nivo, ako je poznat.

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

Communication skills ▪ Good communication skills developed as a result of professional experience.

Organisational / managerial skills ▪ Good organisational skills as a result of professional experience in lecturing and research work.

## ADDITIONAL INFORMATION

- Projects**
- “CoreIT – Analiza korisničkih zahtjeva u sklopu pripreme tehničkog opisa projekta CEFTA SEED+ (CoreIT – Analysis of user requirements as part of the preparation of the technical description of the CEFTA SEED+ project)”, 2021, Univerziteta of Sarajevo team member,.
  - “ERASMUS+ Capacity Building 585716-EPP-1-2017-1-AT-EPPKA2-CBHE-JP Boosting the Telecommunications Engineer Profile to Meet Modern Society and Industry Needs (BENEFIT) “ - “Jačanje profila inženjera telekomunikacija da zadovolji potrebe modernog društva i industrije“, 2017-2021, project team member.
  - „Ocjena tehnološke i ekonomske opravdanosti korištenja tradicionalne infrastrukture izgrađene na bazi bakarnih kabela za širokopojasni pristup suvremenoj telekomunikacijskoj infrastrukturi namijenjenoj za pružanje multimedijalnih usluga“, Federalno ministarstvo obrazovanja i nauke po konkursu za 2017. godinu, project team member.

- Reviewer (journals)**
- Signals,
  - AI,
  - Applied Sciences,
  - Applied System Innovation,
  - Expert Systems With Applications,
  - Journal of Ambient Intelligence and Humanized Computing

- Membership in Professional Societies**
- Institute of Electrical and Electronics Engineers (IEEE).
  - CIGRE

- Research Profiles**
- ORCID: <https://orcid.org/0000-0003-0274-660X>
  - ResearchGate: <https://www.researchgate.net/profile/Emir-Turajlic-2>
  - Google scholar: <https://scholar.google.com/citations?user=0BzGFQAAAAJ&hl=hr&oi=sra>
  - Publons: <https://publons.com/wos-op/researcher/5290400/emir-turajlic/>

- Conference Organization**
- Publication Chair, 2022 International Conference on Information, Communication and Automation Technologies (ICAT2022), 2022.
  - Scientific and Organizing Committee member, The International Symposium on Mechatronics, Robotics and Embedded Systems-MRES 2018.
  - Program Chair, 2017 International Conference on Information, Communication and Automation Technologies (ICAT2017), 2017.
  - Scientific and Organizing Committee member, The International Symposium on Mechatronics, Robotics and Embedded Systems-MRES 2017.
  - The International Symposium on Mechatronics, Robotics and Embedded Systems –MRES 2018.
  - General Chairs, 2016 XI International Symposium on Telecommunications (BIHTEL2016), 2016.

## REFERENCES

- Books**
- Jasmina Baraković Husić, Sabina Baraković, Emir Turajlić, Multimedija i umrežavanje, Univerzitet u Sarajevu, Elektrotehnički fakultet, 2020, ISBN: 978-9958-629-84-6.
  - Emir Turajlić, Jasmina Baraković Husić, Sabina Baraković, „Kompresija slike i videa,“ Univerzitet u Sarajevu, Elektrotehnički fakultet, 2018, ISBN: 978-9958-629-71-6.
  - Emir Turajlić, Artificial neural networks: an algorithmic perspective, Fojnica, 2013, ISBN: 978-9958-17-035-5.

## Refereed Journal Publications

- A. Mujezinović, E. Turajlić, A. Alihodžić, M.M. Dedović, and N. Dautbašić. 2022. "Calculation of Magnetic Flux Density Harmonics in the Vicinity of Overhead Lines" *Electronics* 11, no. 4: 512, 2022.
- A. Mujezinovic, E. Turajlic, A. Alihodzic, N. Dautbasic and M. M. Dedovic, "Novel Method for Magnetic Flux Density Estimation in the Vicinity of Multi-Circuit Overhead Transmission Lines," in *IEEE Access*, vol. 10, pp. 18169-18181, 2022.
- A. Alihodzic, A. Mujezinovic and E. Turajlic, "Electric and Magnetic Field Estimation Under Overhead Transmission Lines Using Artificial Neural Networks," in *IEEE Access*, vol. 9, pp. 105876-105891, 2021.
- E. Turajlic, A. Begović, N. Škaljo, "Application of Artificial Neural Network for Image Noise Level Estimation in the SVD domain," *Electronics*, vol. 8, No 2: 163. 2019.
- E. Turajlic, "Adaptive Block-Based Approach to Image Noise Level Estimation in the SVD Domain," *Electronics*, vol. 7, No 12: 397, 2018,
- E. Turajlic, "Adaptive SVD Domain-Based White Gaussian Noise Level Estimation in Images," *IEEE Access*, 2018, vol. 6, pp. 72735-72747.

## International Conferences

- Alihodzic, E. Turajlic and A. Mujezinovic, "Machine Learning Model for Electric and Magnetic Fields Estimation in the Proximity of Overhead Transmission Lines," *2021 29th Telecommunications Forum (TELFOR)*, pp. 1-4, 2021.
- E. Turajlic, E. Buza and A. Akagic, "Multilevel image thresholding based on Rao algorithms and Kapur's Entropy," *2022 XXVIII International Conference on Information, Communication and Automation Technologies (ICAT)*, pp. 1-7, 2022.
- Alihodzic, A. Mujezinovic, E. Turajlic and N. Dautbasic, "Calculation of the Electric Field Intensity and Magnetic Flux Density Generated by High Voltage Overhead Transmission Lines," *2022 XXVIII International Conference on Information, Communication and Automation Technologies (ICAT)*, pp. 1-6, 2022.
- N. Skaljo, A. Begović, N. Goran and E. Turajlić, "On Possibilities for Improvements of xDSL Troubleshooting Testing," *2019 International Conference on Systems, Signals and Image Processing (IWSSIP)*, pp. 139-143, 2019.
- E. Turajlic, "Application of firefly and bat algorithms to multilevel thresholding of X-ray images," In *Proceedings of 41st International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO)*, Opatija, Croatia, pp. 1104-1109, 21-25 May 2018.
- D. Helac, E. Sokic, E. Turajlic, "Almonds classification using supervised learning methods," In *Proceedings of XXVI Information, Communication and Automation Technologies (ICAT)*, Sarajevo, Bosnia-Herzegovina, pp. 1-6, 26-28 Oct. 2017.
- E. Turajlic, A. Begović, "Noise estimation using adaptive Gaussian filtering and variable block size image segmentation", In *Proceedings of IEEE EUROCON*, Ohrid, Makedonija, pp. 249-254, 6-8 July 2017.
- E. Turajlić, "A fast noise level estimation algorithm based on adaptive image segmentation and Laplacian convolution," In *Proceedings of 40th Information and Communication Technology, Electronics and Microelectronics (MIPRO)*, Opatija, Croatia, pp. 486-491, 22-26 May 2017.
- N. Škaljo, A. Begović, E. Turajlić, N. Behilović, "On using of physical layer parameters of xDSL transceivers for troubleshooting," In *Proceedings of 24th International Conference on Systems, Signals and Image Processing IWSSIP*, Poznan, Poland, pp. 1-4, 22-24 May 2017.
- E. Turajlić, N. Škaljo, A. Begović, "A block-based noise level estimation from X-ray images in SVD domain", In *Proceedings of 24th International Conference on Systems, Signals and Image Processing IWSSIP*, Poznan, Poland pp. 1-5, 22-24 May 2017.
- E. Turajlić, V. Karahodzic. "An Adaptive Scheme for X-ray Medical Image Denoising using Artificial Neural Networks and Additive White Gaussian Noise Level Estimation in SVD Domain," *CMBEBIH 2017, IFMBE Proceedings*, 62, pp. 36-40, 2017.
- E. Turajlić, "Application of neural networks to denoising of CT images of lungs," In *Proceedings of XI International Symposium on Telecommunications (BIHTEL)*, Sarajevo, Bosnia-Herzegovina, pp. 1-6, 24-26 Oct. 2016.
- E. Turajlić, "Application of neural networks to compression of CT images," In *Proceedings of XI International Symposium on Telecommunications (BIHTEL)*, Sarajevo, Bosnia-Herzegovina pp. 1-6, 24-26 Oct. 2016,
- Turajlic, Emir. „A fully automatic method for accurate parametrization and reconstruction of ECG waveforms,” In *Proceedings of the IASTED International Conference on Biomedical Engineering (BioMed 2013)*, Innsbruck, Austria, 13 Feb. 2013, pp. 113-119.

- Turajlic, Emir; Softic, Dzenan. "A Study of Temporal Structure of Glottal Flow Derivative Estimates Associated with Laryngeal Pathology," In Proceeding Biomedical Engineering (BioMed 2013), Innsbruck, Austria, 13 Feb. 2013, pp. 145-151.
- Turajlic, Emir. "A Novel Algorithm for ECG Parametrization and Synthesis," In Proceedings of IEEE-EMBS Conference on Biomedical Engineering and Sciences, Langkawi; Malaysia; 17-19 Dec. 2012, pp. 927 – 932.
- Turajlic, Emir; Bozanovic, Olja. "Neural Network Based Speaker Verification for Security," In Proceedings of Telecommunications Forum (TELFOR), Belgrade; Serbia; 20-22 Nov. 2012, pp. 740 - 743.
- Turajlic, Emir; Bozanovic, Olja. "A novel adaptive IIR filter algorithm," In Proceedings of Telecommunications Forum (TELFOR), Belgrade; Serbia; 20-22 Nov. 2012, pp. 464 – 467.
- Turajlic, Emir; Bozanovic, Olja. "A novel adaptive FIR filter algorithm," In Proceedings of IX International Symposium on Telecommunications (BIHTEL), Sarajevo; Bosnia and Herzegovina, 25-27 Oct. 2012. pp. 1-5.
- Turajlic, Emir; Bozanovic, Olja. "Optimized group delay based estimation of glottal closure instants," In Proceedings of IX International Symposium on Telecommunications (BIHTEL), Sarajevo; Bosnia and Herzegovina, 25-27 Oct. 2012. pp. 1-6.
- Turajlic, Emir; Softic, Dzenan. "Classification of Power Quality Disturbances Using Artificial Neural Networks and a Logarithmically Compressed S-Transform," In Proceedings of 19th International Conference on Neural Information Processing, (ICONIP 2012), Lecture Notes in Computer Science, Vol. 7664, Doha, Qatar, 12-15 Nov. 2012, pp 608-615.
- Turajlic, Emir; Vaseghi, Saeed. "A Study of Temporal Structure of Glottal Flow Derivative Estimates Obtained via Inverse Filtering," In Proceedings of 15th European Signal Processing Conference (EUSIPCO), Poznan; Poland, 3-7 Sept. 2007, pp. 2050-2054.
- Turajlic, Emir; Rentzos, Dimitrios; Vaseghi, Saeed; Ho, Ching-Hsiang. "Evaluation of methods for parameteric formant transformation in voice conversion," In Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Hong Kong, China, 6-10 April 2003. pp. 724-727.
- Yan, Qin; Vaseghi, Saeed; Rentzos, Dimitrios; Ho, Ching-Hsiang; Turajlic, Emir. "Analysis of acoustic correlates of British, Australian and American accents," In Proceedings of Workshop on Automatic Speech Recognition and Understanding (ASRU), St Thomas, USA, 2003, pp. 345-350.
- Yan, Qin; Vaseghi, Saeed; Ho, Ching-Hsiang; Rentzos, Dimitrios; Turajlic, Emir. "Comparative analysis and synthesis of formant trajectories of British and broad Australian accents," In Proceedings of 8th European Conference on Speech Communication and Technology (Eurospeech), Geneva; Switzerland; 2003, pp. 2941-2944.
- Rentzos, Dimitrios; Vaseghi, Saeed; Yan, Qin; Ho, Ching-Hsiang; Turajlic, Emir. "Probability models of formant parameters for voice conversion," In Proceedings of 8th European Conference on Speech Communication and Technology (Eurospeech), Geneva; Switzerland; 2003, pp. 2405-2408.
- Rentzos, Dimitrios; Vaseghi, Saeed; Turajlic, Emir, Yan, Qin; Ching-Hsiang. "Transformation of speaker characteristics for voice conversion," In Proceedings of Workshop on Automatic Speech Recognition and Understanding (ASRU), St Thomas, USA, pp. 706-711, 2003.