

Journals:

J4) I. Damaj, **J. Yousafzai**, H. Mouftah, "Future trends in connected and autonomous vehicles: enabling communication and processing technologies" – *IEEE ACCESS*, Vol. 10, pages: 42334 – 42345, April 2022.

<https://doi.org/10.1109/ACCESS.2022.3168320>

J3) I. Damaj, **J. Yousafzai**, "Effective assessment of student outcomes in computer engineering programs using a minimalistic framework" – *International Journal of Engineering Education*, Vol. 35 (1A), pages: 59 – 75, January 2019.

<https://www.ijee.ie/contents/c350119A.html>

J2) I. Damaj, A. Zaher, **J. Yousafzai**, "A unified assessment and evaluation framework with successful application in ABET accreditation" – *International Journal of Engineering Pedagogy*, Vol. 7 (3), pages: 73 – 91, September 2017.

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J1) **J. Yousafzai**, Z. Cvetkovic, P. Sollich, B. Yu, "Combined features and kernel design for noise robust phoneme classification using support vector machines" – *IEEE Transactions on Audio, Speech & Language Processing*, Vol. 19 (5), pages: 1396 – 1407, July 2011.

<https://doi.org/10.1109/TASL.2010.2090657>

Conferences, Workshops and Symposia:

C15) **J. Yousafzai**, A. Yousafzai "A brick-by-brick approach to learning MIPS microarchitecture," *IEEE Global Engineering Education Conference (EDUCON) 2023*, pages: 1-5.

<https://doi.org/10.1109/EDUCON54358.2023.10125135>

C14) A. Zaher, **J. Yousafzai**, "An adaptive control approach to securely transmit colored images using chaos-based cryptography" – *The 62nd IEEE Midwest Symposium on Circuits and Systems*, pages: 953 – 956, 2019.

<https://doi.org/10.1109/MWSCAS.2019.8885161>

C13) I. Damaj, **J. Yousafzai** "A maximum mutuality model for continuous improvement in engineering departments" – *Proceedings of the 2018 IEEE Global Engineering Education Conference EDUCON*, pages: 994 – 998, 2018.

<https://doi.org/10.1109/EDUCON.2018.8363337>

C12) **J. Yousafzai**, I. Damaj, A. Yousafzai “Incorporating jigsaw cooperative learning in a signals and systems course” – *Proceedings of the 2017 IEEE Global Engineering Education Conference EDUCON*, pages: 1225–1228, 2017.

<https://doi.org/10.1109/EDUCON.2017.7943004>

C11) I. Damaj, **J. Yousafzai**, “Simple and accurate student outcomes assessment: a unified approach using senior computer engineering design experiences” – *Proceedings of the 2016 IEEE Global Engineering Education Conference EDUCON*, pages: 204–211, 2016.

<https://doi.org/10.1109/EDUCON.2016.7474554>

C10) **J. Yousafzai**, I. Damaj, M. El Abd, “A unified approach for assessing capstone design projects and student outcomes in computer engineering programs” – *Proceedings of the 2015 IEEE Global Engineering Education Conference EDUCON*, pages: 340–346, 2015.
[Received the Best Paper Award]

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C9) **J. Yousafzai**, Z. Cvetkovic, P. Sollich, “Effects of domain-specific SVM kernel design on the robustness of automatic speech recognition” – *Proceedings of IEEE 18th International Conference on Digital Signal Processing (DSP)*, pages: 1–7, 2013.

<https://doi.org/10.1109/ICDSP.2013.6622705>

C8) **J. Yousafzai**, M. Ager, Z. Cvetkovic, P. Sollich, “Redundancy in speech signals and robustness of automatic speech recognition” – *IEEE International Symposium on Problems of Redundancy in Information and Control Systems*, pages: 93–98, 2012.

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C7) **J. Yousafzai**, Z. Cvetkovic, P. Sollich, “Subband acoustic waveform front-end for robust speech recognition using support vector machines” – *IEEE Workshop on Spoken Language Technology (SLT)*, pages: 253–258, 2010.

<https://doi.org/10.1109/SLT.2010.5700860>

C6) **J. Yousafzai**, Z. Cvetkovic, P. Sollich, “Towards robustness of phoneme classification using hybrid features” – *IEEE International Symposium on Information Theory (ISIT)*, pages: 1643–1647, 2010.

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C5) **J. Yousafzai**, Z. Cvetkovic, P. Sollich, “Tuning support vector machines for robust phoneme classification with acoustic waveforms” – *International Speech Communication Association Conference (INTERSPEECH)*, pages: 2391–2394, 2009.

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C4) **J. Yousafzai**, Z. Cvetkovic, P. Sollich, "Custom designed SVM kernels for improved robustness of phoneme classification" – *European Signal Processing Conference (EUSIPCO)*, pages: 1765–1769, 2009.

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C3) **J. Yousafzai**, Z. Cvetkovic, P. Sollich, B. Yu, "Combined PLP – acoustic waveform classification for robust speech recognition using support vector machines" – *European Signal Processing Conference (EUSIPCO)*, pages: 923–927, 2008.

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C2) **J. Yousafzai**, M. Ager, Z. Cvetkovic, P. Sollich, "Discriminative and generative machine learning approaches towards robust phoneme recognition" – *IEEE Workshop on Information Theory and Applications (ITA)*, pages: 471–475, 2008.

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C1) **J. Yousafzai**, Z. Cvetkovic, "An efficient multichannel equalization algorithm for audio applications" – *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages: I-189 – I-192, 2007.

<https://doi.org/10.1109/ICASSP.2007.366648>

Presentations:

P7) "Games People Play: Strategies & Decision-Making Using Game Theory", *Science Colloquium, American University of Kuwait, Kuwait* – December 11, 2012

P6) "Support Vector Machines: A state-of-the-art tool for pattern recognition", *Science Colloquium, American University of Kuwait, Kuwait* – March 20, 2012

P5) "A subband-based SVM framework for robust ASR", *King's College London, UK* – March 15, 2011.

P4) "Discriminative and generative approaches towards robust speech recognition", *University of California at Berkeley, CA, USA* – December 8, 2010.

P3) "New directions towards robust speech recognition", *Speech Technology and Research (STAR) Laboratory, SRI International, CA, USA* – December 6, 2010.

P2) "High-dimensional linear representations for robust speech recognition", *AT&T Shannon Labs, NJ, USA* – May 19, 2010.

P1) "New directions in increasing speech recognition errors", *IDIAP Research Institute, Martigny, Switzerland* – June 22, 2009.

Abstracts:

A1) D. AlQemlas, F. Edhbayah, S. AlHudaibi, S. AlZanki, S. E. Esmaeili, J. Yousafzai, "Upcycle Bot (re-sort)", *12th Undergraduate Research Conference on Applied Computing, Dubai, page 7, 2020.*

A2) I. Damaj, J. Yousafzai, "A unified framework for senior design-based assessment of student outcomes", *The Seventh International Conference on Effective Teaching and Learning in Higher Education, American University of Beirut, 2017.*

Articles under review/preparation:

WIP1) A. Salem, I. Damaj, J. Yousafzai, H. Mouftah, "Vehicle as a computational resource: machine learning-based multiple criteria optimization for connected vehicles" – *In Progress*

WIP2) J. Yousafzai, Z. Cvetkovic, "Deep learning models for high-dimensional ASR" – *In Progress.*

WIP3) J. Yousafzai, I. Damaj, "A MIPS/RISC-V concept inventory" – *In Progress.*