Itır Önal Ertuğrul

CONTACT INFORMATION

Social and Affective Computing
Department of Information and Computing Sciences
Utrecht University

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RESEARCH INTERESTS

Machine learning, computer vision, affective computing, multimodal interaction

ACADEMIC AND WORK EXPERIENCE

Assistant Professor **02/2022 - current**
Department of Information and Computing Sciences, Utrecht University

Assistant Professor **08/2020 - 01/2022**
Department of Cognitive Science and Artificial Intelligence, Tilburg University

Postdoctoral Researcher **02/2018 - 07/2020**
Robotics Institute, Carnegie Mellon University

Postdoctoral Researcher **09/2017 - 01/2018**
Affect Analysis Group, Department of Psychology, University of Pittsburgh

Research and Teaching Assistant **09/2011 - 09/2017**
ImageLab, Department of Computer Engineering, Middle East Technical University

Visiting Ph.D. Student **07/2016 - 09/2016**
Pattern Recognition and Bioinformatics Lab, Delft University of Technology

Summer School Attendee **07/2010 - 08/2010**
Microsoft Summer School, Ankara, Turkey

Exchange Student **02/2010 - 06/2010**
Department of Electrical Engineering, Czech Technical University

Intern **06/2009 - 07/2009**
Software Research and Development Center (SRDC), Ankara, Turkey

Student Teaching Assistant **09/2008 - 05/2011**
Department of Computer Engineering, Middle East Technical University

EDUCATION

Middle East Technical University (METU), Ankara, Turkey

Ph.D., Computer Engineering, August 2017, 4.00/4.00

M.Sc., Computer Engineering, September 2013, 4.00/4.00

B.Sc., Computer Engineering, June 2011, 3.83/4.00 (3^{rd} place)

HONORS & AWARDS

Received University Teaching Qualification (BKO) October 2024
Best Paper Award in 12^{th} IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI*CC) **2013**
High honor graduation, M.Sc. in Computer Engineering, METU **2013**
High honor graduation (3^{rd} in ranking), B.Sc. Computer Engineering, METU **2011**
Outstanding Achievement Award, Computer Engineering, METU **2008 - 2011**
Ranked 1155^{th} among ~2M examinees in Turkish University Entrance Examination **2006**
Graduation with distinction (3^{rd} in ranking), Ankara Atatürk Anatolian High School **2006**

Grants Led as Principal Investigator

Advancing ADHD Assessment in Children: Behavior Modeling of Parent-Child Interactions **03/2025 - 03/2026**
NWO SSH Open Competition XS Grant (€50K)
Role: Principal Investigator

Predicting Future Development in Children from Videos of Parent Infant Interactions - 11/2024 - 03/2025
Dynamics of Youth Early Childhood Grant (€19K)
Role: Principal Investigator

Automated assessment of internalizing and externalizing behavior of children from parent-child interaction videos **01/2024 - 09/2024**
Dynamics of Youth Invigoration Grant (€25K)
Role: Principal Investigator

Grants Contributed to as Researcher

Adaptive DBS in Non-Motor Neuropsychiatric Disorders: Regulating Limbic Circuit Imbalance. **09/2017 - 08/2021**
National Institute of Neurological Disorders and Stroke
Role: Researcher

Deep Brain Stimulation for Depression Using Directional Current Steering and Individualized Network Targeting. **10/2017 - 08/2021**
National Institute of Neurological Disorders and Stroke
Role: Researcher

Automatic Multimodal Affect Detection for Research and Clinical Use. **09/2017 - 08/2021**
National Institutes of Mental Health
Role: Researcher

Modeling the Dynamics of Early Communication and Development. **09/2017 - 07/2018**
National Institute of General Medical Sciences
Role: Researcher

Multi-layered cognitive learning model. **09/2014 - 09/2016**
The Scientific and Technological Research Council of Turkey (TUBITAK) (Project no: 114E045)
Role: Researcher

Local voxel networks for modeling and classification of brain activity during cognitive processing, using brain signals. **09/2013 - 09/2015**
The Scientific and Technological Research Council of Turkey (TUBITAK) (Project no: 112E315)
Role: Researcher

Reviewing

IEEE Transactions on Affective Computing, IEEE Transactions on Pattern Analysis and Machine Intelligence, Neurocomputing, Image and Vision Computing, IEEE Journal of Biomedical and Health Informatics, IEEE Transactions on Cybernetics, Journal of Ambient Intelligence and Humanized Computing, IEEE International Conference on Automatic Face and Gesture Recognition, ACM Multimedia, International Conference on Pattern Recognition, International Conference on Affective Computing & Intelligent Interaction.

Professional Activities

Member of Informatics Research Advisory Committee (IRAC) **2025 - current**
Awards Chair, FG 2025 **2025**
Associate Editor of IEEE Transactions on Affective Computing **2024 - current**
Doctoral Consortium Chair, ACII 2024 **2024**

Co-organizer, Workshop on Advancements in Facial Expression Analysis and Synthesis: Past, Present, and Future (in conjunction with FG) **2024**
Co-organizer, Ambient Intelligence for Health Workshop (in conjunction with MICCAI) **2023**
Member of WICS committee at Utrecht University **2022 - current**
Area Chair at Women in Machine Learning workshop (WIML) **2022**
Area Chair at Signal and Image Processing (SIU) **2022**
Guest Associate Editor in Frontiers in Computer Science **2021**
AI Program Committee Member, Grace Hopper Celebration **2021**
Guest Associate Editor in Frontiers in Neuroinformatics **2020**
Co-organizer, Multimodal Interaction in Psychopathology Workshop (in conjunction with International Conference on Multimodal Interaction) **2020**
AI Program Committee Member, Grace Hopper Celebration **2020**

SCHOLARSHIPS

TUBITAK 2211: National Scholarship for Ph.D. Students **2013 - 2017**
The Scientific and Technological Research Council of Turkey

TUBITAK 2210: National Scholarship for M. Sc. Students **2011 - 2013**
The Scientific and Technological Research Council of Turkey

JOURNAL PUBLICATIONS

[1] J. Rudokaite, S. Ong, **I. Onal Ertugrul**, M. P. Janssen, & E. Huis in 't Veld (2025). Predicting vasovagal reactions to needles from video data using 2D-CNN with GRU and LSTM. PloS one, 20(1), e0314038.

[2] S. Hinduja, A. Darzi, **I. Onal Ertugrul**, N. Provenza, R. Gadot, E. A. Storch, W. K. Goodman, and J. F. Cohn (2024). Multimodal prediction of obsessive-compulsive disorder, comorbid depression, and energy of deep brain stimulation. IEEE Transactions on Affective Computing.

[3] Y. A. Ahn, **I. Onal Ertugrul**, S. M. Chow, J. F. Cohn, D. S. Messinger (2023). Automated measurement of infant and mother Duchenne facial expressions in the Face-to-Face/ Still-Face. Infancy, 28(5), 910-929.

[4] J. Rudokaite, L. S. Ong, **I. Onal Ertugrul**, M. P. Janssen, E. M. Huis in't Veld (2023). Predicting vasovagal reactions to needles with anticipatory facial temperature profiles. Scientific Reports, 13(1), 9667.

[5] J. Rudokaite, **I. Onal Ertugrul**, Sharon Ong, Mart P. Janssen, Elisabeth Huis in't Veld, Predicting Vasovagal Reactions to Needles from Facial Action Units, *Journal of Clinical Medicine*, 2023.

[6] **I. Onal Ertugrul**, Y. A. Ahn, M. Bilalpur, D. S. Messinger, M. L. Speltz, J. F. Cohn, Infant AFAR: Automated facial action recognition in infants. *Behavior research methods*, 2022

[7] K. Niinuma, **I. Onal Ertugrul**, J. F. Cohn, L. A. Jeni, Facial Expression Manipulation for Personalized Facial Action Estimation. *Frontiers in Signal Processing*, 2022

[8] N. R. Provenza, S. A. Sheth, E. M. Dastin-van Rijn, R. K. Mathura, Y. Ding, G. S. Vogt, M. Avendano-Ortega, N. Ramakrishnan, N. Peled, L. F. Fracassi Gelin, D. Xing, L. A. Jeni, **I. Onal Ertugrul**, A. Barrios-Anderson, E. Matteson, A. D. Wiese, J. Xu, A. Viswanathan, M. T. Harrison, K. R. Bijanki, E. A. Storch, J. F. Cohn, W. K. Goodman, D. A. Borton. Long-term ecological assessment of intracranial electrophysiology synchronized to behavioral markers in Obsessive-Compulsive Disorder. *Nature Medicine*, 2021.

[9] K. Niinuma, **I. Onal Ertugrul**, J. F. Cohn, and L. A. Jeni. Systematic Evaluation of Design Choices for Deep Facial Action Coding Across Pose. *Frontiers in Computer Science*, 2021

[10] **I. Onal Ertugrul**, J. F. Cohn, L. A. Jeni, Z. Zhang, L. Yin, and Q. Ji. Crossing domains for AU coding: perspectives, approaches, and measures. *IEEE Transactions on Biometrics, Behavior and Identity Science.* 2020.

[11] **I. Onal Ertugrul**, L. Yang, L. A. Jeni, J. F. Cohn. D-PAttNet: Dynamic Patch-Attentive Deep Network for Action Unit Detection. *Frontiers in Computer Science*, 2019.

[12] **I. Onal Ertugrul**, M. Ozay, F. T. Yarman Vural. Gender classification using mesh networks on multiresolution multitask fMRI data . *Brain Imaging and Behavior*, 2019.

[13] **I. Onal Ertugrul**, L. A. Jeni, H. Dibeklioglu. Modeling and Synthesis of Kinship Patterns of Facial Expressions. *Image and Vision Computing*, 2018.

[14] **I. Onal Ertugrul**, M. Ozay, F. T. Yarman Vural. Encoding the Local Connectivity Patterns of fMRI for Cognitive State Classification. *Brain Imaging and Behavior*, 2018.

[15] **I. Onal Ertugrul**, M. Ozay, F. T. Yarman Vural. Hierarchical Multi-resolution Mesh Networks for Brain Decoding *Brain Imaging and Behavior*, 2017.

[16] **I. Onal**, M. Ozay, E. Mizrak, I. Oztekin and F. T. Yarman Vural, A New Representation of fMRI Signal by a Set of Local Meshes for Brain Decoding. *IEEE Transactions on Signal and Information Processing over Networks*, 2017.

[17] O. Firat, M. Ozay, **I. Onal**, I. Oztekin, F. T. Yarman Vural, Enhancing Local Linear Models Using Functional Connectivity for Brain State Decoding, *International Journal of Cognitive Informatics and Natural Intelligence*, 2014.

BOOK CHAPTERS

[18] J. F. Cohn, **I. Onal Ertugrul**, W. S. Chu, J. M. Girard, L. A. Jeni, and Z. Hammal. Affective facial computing: Generalizability across domains. In Multimodal Behavior Analysis in the Wild, pp. 407-441. Academic Press, 2019.

CONFERENCE PUBLICATIONS

[19] M. Ning, A. A. Salah, **I. Onal Ertugrul**, Revisiting Representation Learning and Identity Adversarial Training for Facial Behavior Understanding, *IEEE International Conference on Automatic Face and Gesture Recognition (FG)* 2025.

[20] M. Ning, M. Li, J. Su, A. A. Salah, **I. Onal Ertugrul**, Elucidating the Exposure Bias in Diffusion Models, *International Conference on Learning Representations (ICLR)*. 2024.

[21] **I. Onal Ertugrul**, S. Hinduja, M. Bilalpur, D. S. Messinger, and J. F. Cohn, Expanding PyAFAR: A Novel Privacy-Preserving Infant AU Detector, *IEEE International Conference on Automatic Face and Gesture Recognition (FG)* 2024.

[22] J. Rudokaite, **I. Onal Ertugrul**, S. Ong, M. Janssen, and E. M. Huis in't Veld, Face the Needle: Predicting risk of fear and fainting during blood donation through video analysis, *IEEE International Conference on Automatic Face and Gesture Recognition (FG)* 2024.

[23] M. Rau and **I. Onal Ertugrul**, Video Swin Transformers in Pain Detection: A Comprehensive Evaluation of Effectiveness, Generalizability, and Explainability, *Workshop on Automated Assessment of Pain, ACII*, 2024

[24] M. M. Jung, M. Van Vlierden, W. Liebregts, **I. Onal Ertugrul**, Do Body Expressions Leave Good Impressions?-Predicting Investment Decisions based on Pitcher's Body Expressions. *In Companion Publication of the 25th International Conference on Multimodal Interaction* (pp. 36-40), 2023.

[25] P. Van Aken, M. M. Jung, W. Liebregts, W. **I. Onal Ertugrul**, Deciphering Entrepreneurial Pitches: A Multimodal Deep Learning Approach to Predict Probability of Investment. *In Proceedings of the 25th International Conference on Multimodal Interaction* (pp. 144-152), 2023.

[26] S. Hinduja, **I. Onal Ertugrul**, M. Bilalpur, D. S. Messinger, J. F. Cohn, PyAFAR: Python-based Automated Facial Action Recognition library for use in Infants and Adults. *In International Conference Affective Computing and Intelligent Interaction (ACII)*, 2023.

[27] M. Ning, **I. Onal Ertugrul**, D. S. Messinger, J. F. Cohn, A. A. Salah, Automated Emotional Valence Estimation in Infants with Stochastic and Strided Temporal Sampling. *In International Conference Affective Computing and Intelligent Interaction (ACII)*, 2023.

[28] I. Goossens, M. M. Jung, W. Liebregts, **I. Onal Ertugrul**, To Invest or Not to Invest: Using Vocal Behavior to Predict Decisions of Investors in an Entrepreneurial Context. *In International Workshop on Human Behavior Understanding (HBU)*, 2022.

[29] Fiorentini, G., **I. Onal Ertugrul**, A. A. Salah, Fully-attentive and interpretable: vision and video vision transformers for pain detection. *In NeurIPS 2022 Workshop on Vision Transformers: Theory and Applications.*, 2022.

[30] A. T. Prabawa, M. M. Jung, K. Stoitsas, W. Liebregts, **I. Onal Ertugrul**, Predicting Probability of Investment Based on Investor's Facial Expression in a Startup Funding Pitch. In Proceedings of *BNAIC/BeNeLearn*, 2022.

[31] K. Stoitsas, K., **I. Onal Ertugrul**, I., W. Liebregts, M. M. Jung, Predicting evaluations of entrepreneurial pitches based on multimodal nonverbal behavioral cues and self-reported characteristics. *In Companion Publication of the 2022 International Conference on Multimodal Interaction*, 2022

[32] K. Niinuma, L. A. Jeni, **I. Onal Ertugrul**, and J. F. Cohn. Synthetic Expressions are Better Than Real for Learning to Detect Facial Actions. *IEEE Winter Conference on Applications of Computer Vision (WACV)* 2021.

[33] Y. Ding, **I. Onal Ertugrul**, A. Darzi, N. Provenza, L. A. Jeni, D. Borton, W. Goodman, and J. F. Cohn. Automated Detection of Optimal DBS Device Settings. *Companion Publication of the 2020 International Conference on Multimodal Interaction*, 2020.

[34] **I. Onal Ertugrul**, L. A. Jeni, and J. F. Cohn. PAttNet: Patch-attentive deep network for AU detection. *British Machine Vision Conference (BMVC)* 2019.

[35] K. Niinuma, L. A. Jeni, **I. Onal Ertugrul**, and J. F. Cohn. Unmasking the devil in the details: What works for deep facial action coding? *British Machine Vision Conference (BMVC)* 2019.

[36] L. Yang, **I. Onal Ertugrul**, J. F. Cohn, Z. Hammal, D. Jiang, and H. Sahli. FACS3D-Net: 3D convolution based spatiotemporal representation for action unit detection. *International Conference on Affective Computing and Intelligent Interaction (ACII)* 2019.

[37] **I. Onal Ertugrul**, J. F. Cohn, L. A. Jeni, Z. Zhang, L. Yin, and Q. Ji. Cross-domain AU detection: domains, learning approaches, and measures. *IEEE International Conference on Automatic Face and Gesture Recognition (FG)* 2019, (oral presentation).

[38] **I. Onal Ertugrul**, L. A. Jeni, W. Ding, and J. F. Cohn. AFAR: A Deep learning based tool for automated facial affect recognition. *IEEE International Conference on Automatic Face and Gesture Recognition (FG)*, 2019.

[39] J. F. Cohn, L. A. Jeni, **I. Onal Ertugrul**, D. Malone, M. S. Okun, D. Borton, and W. K. Goodman. Automated Affect Detection in Deep Brain Stimulation for Obsessive-Compulsive Disorder: A Pilot Study. *International Conference on Multimodal Interaction (ICMI)*, 2018.

[40] **I. Onal Ertugrul**, L. A. Jeni and J. F. Cohn, FACSCaps: Pose-Independent Facial Action Coding with Capsules *IEEE International Conference on Computer Vision and Pattern Recognition Workshops (CVPRW)*, 2018.

[41] **I. Onal Ertugrul** and H. Dibeklioglu, What will Your Future Child Look Like? Modeling and Synthesis of Hereditary Patterns of Facial Dynamics. *IEEE International Conference on Automatic Face and Gesture Recognition (FG)*, 2017, (oral presentation).

[42] A. M. Ertugrul, **I. Onal**, C. Acarturk, Does the Strength of Sentiment Matter? A Regression Based Approach on Turkish Social Media, *International Conference on Applications of Natural Language to Information Systems (NLDB)*, 2017.

[43] A. Afrasiyabi, **I. Onal**, F. T. Yarman Vural, A Sparse Temporal Mesh Model for Brain Decoding, *15th IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI*CC)*, 2016.

[44] **I. Onal**, M. Ozay, F. T. Yarman Vural, Functional Mesh Model with Temporal Measurements for Brain Decoding, 37^{th} *Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, 2015.

[45] **I. Onal**, M. Ozay, F. T. Yarman Vural, Modeling Voxel Connectivity for Brain Decoding, *International Workshop on Pattern Recognition in Neuroimaging (PRNI)* 2015, (oral presentation)

[46] **I. Onal**, A. Temizel, F. T. Yarman Vural, Spatial and Temporal Feature Extraction for Brain Decoding using CUDA, *GPU Technology Conference (GTC)*, 2015.

[47] **I. Onal**, E. Aksan, B. Velioglu, O. Firat, M. Ozay, I. Oztekin, F. T. Yarman Vural, Modeling the Brain Connectivity for Pattern Analysis, 22^{nd} *International Conference on Pattern Recognition (ICPR)*, 2014

[48] O. Firat, **I. Onal**, E. Aksan, B. Velioglu, I. Oztekin, F. T. Yarman Vural, Large Scale Functional Connectivity For Brain Decoding, 11^{th} *IASTED International Conference on Biomedical Engineering (BioMed)*, 2014.

[49] B. Velioglu, E. Aksan, **I. Onal**, O. Firat, M. Ozay, F. T. Yarman Vural, Functional Networks of Anatomic Brain Regions, *13th IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI*CC)*, 2014.

[50] **I. Onal**, A. M. Ertugrul, R. Cakici, Effect of Using Regression on Class Confidence Scores in Sentiment Analysis of Twitter Data, *5th ACL Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis (WASSA)*, 2014.

[51] A. M. Ertugrul, **I. Onal**, RemindMe: An Enhanced Mobile Location-Based Reminder Application, *International Conference on Future Internet of Things and Cloud (FiCloud)*, 2014.

[52] **I. Onal**, M. Ozay, O. Firat, I. Oztekin, F. T. Yarman Vural, An Information Theoretic Approach to Classify Cognitive States Using fMRI, 13^{th} *IEEE International Conference on BioInformatics and BioEngineering (BIBE)*, 2013.

[53] **I. Onal**, M. Ozay, O. Firat, I. Oztekin, F. T. Yarman Vural, Analyzing the Information Distribution in the fMRI measurements by estimating the degree of locality, 35^{th} *Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, 2013.

[54] O. Firat, M. Ozay, **I. Onal**, I. Oztekin, F. T. Yarman Vural, Functional Mesh Learning for Pattern Analysis of Cognitive Processes, $12th$ *IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI*CC)*, 2013. **(Best Paper Award)**

[55] O. Firat, M. Ozay, *I. Onal*, I. Oztekin, F. T. Yarman Vural, Representation of Cognitive Processes Using the Minimum Spanning Tree of Local Meshes, 35^{th} *Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, 2013.

[56] **I. Onal**, K. Kardas, Y. Rezaeitabar, U. Bayram, M. Bal, I. Ulusoy, N. Kesim Cicekli, A framework for Detecting Complex Events in Surveillance Videos, *3rd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety (AAMS-PS)*, 2013.

NATIONAL CONFERENCE PUBLICATIONS

[57] A. Afrasiyabi, **I. Onal**, F. T. Yarman Vural. Effect of voxel selection on temporal mesh model for brain decoding. 24^{th} *IEEE Signal Processing and Communication Application Conference (SIU)*, 2016. (in Turkish)

[58] **I. Onal**, E. Aksan, B. Velioglu, O. Firat, M. Ozay, I. Oztekin, F. T. Yarman Vural, A Brain Network for Cognitive State Analysis. 23^{rd} *IEEE Conference on Signal Processing and Communications Applications (SIU)*, 2015. (in Turkish)

[59] **I. Onal**, E. Aksan, B. Velioglu, O. Firat, M. Ozay, I. Oztekin, F. T. Yarman Vural, Estimating Brain Connectivity for Pattern Analysis, 22^{nd} *IEEE Conference on Signal Processing and Communications Applications (SIU)*, 2014. (in Turkish)

[60] **I. Onal**, A. M. Ertugrul, Effect of Using Regression in Sentiment Analysis, 22^{nd} *IEEE Conference on Signal Processing and Communications Applications (SIU)*, 2014. (in Turkish)

[61] A. M. Ertugrul, **I. Onal**, Çeşitli Konum Etiketleme Opsiyonlarıyla Zenginleştirilmiş Yeni Bir Konum Bazlı Hatırlatma Uygulaması, *8. Ulusal Yazılım Mühendisliği Sempozyumu (UYMS)*, 2014. (in Turkish)

[62] **I. Onal**, M. Ozay, O. Firat, I. Oztekin, F. T. Yarman Vural, Information Distribution Analysis in the fMRI measurements with Degree of Locality Estimation, 21^{th} *IEEE Conference on Signal Processing and Communications Applications (SIU), 2013* (in Turkish)

[63] O. Firat, M. Ozay, **I. Onal**, I. Oztekin, F. T. Yarman Vural, Cognitive Processes Representation Using Minimum Spanning Tree of Local Meshes, 21^{th} *IEEE Conference on Signal Processing and Communications Applications (SIU), 2013* (in Turkish)

[64] O. Firat, M. Ozay, **I. Onal**, I. Oztekin, F. T. Yarman Vural, A Mesh Learning Approach for Brain Data Modeling, 20^{th} *IEEE Conference on Signal Processing and Communications Applications (SIU)*, 2012. (in Turkish)

PUBLISHED ABSTRACTS

[65] J. F. Cohn, S. Hinduja, A. Darzi, **I. Onal Ertugrul**, I., N. R. Provenza, M. Aafjes, R. Gadot, S. Sheth, W. Goodman, Can an unobtrusive AI-based system based on open-ended interviews effectively guide DBS programming for OCD? *International Society for Clinical Trials and Methodology (ISCTM)*, 2023.

[66] D. S. Messinger, Y.A. Ahn, **I. Onal Ertugrul**, S. M. Chow, J. F. Cohn, Infant and mother Duchenne facial expressions in the face-to-face/still-face. *18th World Congress for the World Association for Infant Mental Health (WAIMH)*, 2023.

[67] N. R. Provenza, S. A. Sheth, E. M. Dastin-van Rijn, R. K. Mathura, Y. Ding, G. S. Vogt, M. Avendano-Ortega, N. Ramakrishnan, N. Peled, L. F. Fracassi Gelin, D. Xing, L. A. Jeni, **I. Onal Ertugrul**, A. Barrios-Anderson, E. Matteson, A. D. Wiese, J. Xu, A.

Viswanathan, M. T. Harrison, K. R. Bijanki, E. A. Storch, J. F. Cohn, W. K. Goodman, D. A. Borton. ID: 16509 Long-Term Ecological Assessment of Intracranial Electrophysiology Synchronized to Behavioral Markers in Obsessive-Compulsive Disorder. *Neuromodulation*, 25(5), S96, 2022

[68] Y. A. Ahn, **I. Onal Ertugrul**, S. M. Chow, J. F. Cohn, D. S. Messinger, Automated measurement of infant and mother duchenne facial expressions in the Face-to-Face/Still-Face. *In New Direction in Face-to-Face Communication, International Conference on Infant Studies.*, 2022

[69] Y. A. Ahn, **I. Onal Ertugrul**, S. M. Chow, J. F. Cohn, D. S. Messinger, Is mother-infant face-to-face responsivity affective? *Society for Affective Science*, 2021

[70] S. Van Asseldonk, I. **Onal Ertugrul**, Deepfake Video Detection using Deep Convolutional and HandCrafted Facial Features with Long Short-Term Memory Network, *In Proceedings of BNAIC/BeNeLearn*, 2021.

[71] A. Olczyk **I. Onal Ertugrul**, Pain recognition from thermal videos using deep neural networks, *In Proceedings of BNAIC/BeNeLearn*, 2021.

THESES

[72] **I. Onal Ertugrul**, Representation of Human Brain by Mesh Networks. *Ph.D. Thesis, Middle East Technical University, Department of Computer Engineering*, 2017.

[73] **I. Onal**, An Information Theoretic Representation of Brain Connectivity for Cognitive State Classification Using Functional Magnetic Resonance Imaging. *M.Sc. Thesis, Middle East Technical University, Department of Computer Engineering*, 2013.