

What Behavioral Signals could be Used to Identify Users?

doc. Ing. PhD. Matúš Pleva

Head of Department of Electronics and Multimedia Telecommunications, Faculty of Electrical Engineering and Informatics,
Technical University of Košice, Slovakia
matus.pleva@tuke.sk

Abstract—The current feasible solutions of behavioral biometrics analysis could identify or verify the user during login or his work inside a secure system. But there are many new approaches that could be used in the future to detect the unauthorized use of electronic devices. What about using not only computers but also cell phones, virtual reality, and augmented reality solutions? How the identity of the users could be monitored during his secured session? How have modern machine-learning approaches changed the game? Many new ideas and state of art concepts will be presented in this talk.



SHORT BIO

Matúš Pleva (Matus Pleva) graduated PhD. in telecommunications from the Department of Electronics and Multimedia Communications of the Faculty of Electrical Engineering and Informatics at the Technical University of Kosice (2010). He works as an associate professor in the field of informatics and is Head of the Department. His research interests are acoustic modeling, acoustic event detection, speaker recognition, speech processing, human-machine interaction, embedded systems and parallel computing, security & biometrics, computer networking, IoT, etc. He is now leading the Slovak part of the project NITRO Clubs EU. He just successfully finished "Deep Learning for Advanced Speech Enabled Applications" bilateral project with the National Taipei University of Technology and "Content innovation and lecture textbooks for Biometric Safety Systems" project as principal investigator. He is a member of MULTI-modal Imaging of FOREnsic SciEnce Evidence tools for Forensic Science and Wearable Robots for Augmentation, Assistance, or Substitution of Human Motor Functions COST actions. He was an MC member of the IC1106 COST action "Integrating Biometrics and Forensics for the Digital Age". He recently started a bilateral collaboration between TUKE and CAVS, MSU, US - the first demo output of the cooperation in the field of robotics and HCI. This collaboration resulted in bilateral Erasmus, MoU, and MoA agreements. He also participated in more than 50 national and international projects and COST actions. He has published over 150 technical papers in journals and conference proceedings with over 1000 citations to date.