**HUMAN-COMPUTER SYMBIOSIS IN GEOSPATIAL SYSTEMS**

**Short-term course**

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|  | **Dr. Eugene Levin, ASPRS Certified Photogrammetrist** is an expert in geospatial science and technology with 30+ years of academic and industry experience in photogrammetry, GIS, WebGIS, mapping, remote sensing, cartography, 3D visualization, human factors, robotics, Lidar, If-SAR, UAV, and aerial and satellite product development. Specifically, he has created new eye tracking-based approach to cognitive GIS and geospatial image processing; developed 4D-GIS system for manned/unmanned robotic platforms navigation, guidance, control, and prediction; initiated, designed, and tested small UAV platforms including one produced on 3D printer; and developed mobile mapping platform integrating GPS, Lidar, and imaging sensors. Dr. Levin has demonstrated sustainable research collaborations with scientists from Germany, Israel, Italy, Poland, Russia, and Kazakhstan. He is an Associate Professor and Program Chair of Surveying Engineering in School of Technology. Dr. Levin developed and is currently directing the Integrated Geospatial Technology graduate program at Michigan Tech University and is actively involved in training of future geospatial workforce.  |

**Eugene Levin Presentations 29 April–10 May, 2019**

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| **Topic** | **Day** | **Time** | **Venue** | **Room** |
| 1. Individual consultation for Master and doctoral students | **April 29** | 14:30-16:05 | consultation | 713 |
| 2. Individual consultation for Master and doctoral students | **April 30** | 14:30-16:05 | consultation | 713 |
| 3.Human Brain and Computer: Why symbiosis is needed ? | **May 02** | 14:30-16:05 | lecture | 508 |
| 4. Experiments: braine-controlled GIS practicum | May 02 | 16:20-17.55 | lab | 715 |
| 5. Individual consultation for Master and doctoral students | May 02 | 16:20-17.55 | consultation | 713 |
| 6. Brain Controlled HCI in GIS | **May 03** | 08:30-10:05 | lecture | 508 |
| 7. Cognitive Collaborative environments for GIS and Remote Sensing | May 03 | 10:20-11.55 | lecture | 715 |
| 8. Brain controlled in-room UAV flight practicum | May 03 | 12:10-13:45 | lab | 508 |
| 9. Individual consultation for Master and doctoral students | **May 04** | 10:20-11.55 | consultation | 713 |
| 10. Brain Controlled UAV and geospatial mixed reality application scenarios | **May 06** | 12:10-13:45 | lecture | 508 |
| 11. Principles of EEG event presentations analysis | May 06 | 14:30-16:05 | lecture |  |
| 12.Practicum on EEG ERP experiment preparation | **May 07** | 12:10-13:45 | lab |  |
| 13. ERP experiments processing principles | May 07 | 14:30-16:05 | lecture | 715 |
| 14.Individual consultation for Master and doctoral students | **May 08** | 10:20-11.55 | consultation | 713 |
| 15. “Aha-moment”- how we can increase Image Analysts workflow productivity? | **May 09** | 14:30-16:05 | lecture | 508 |
| 16. Eye-tracking and gaze-controlled GIS | May 09 | 16:20-17.55 | lecture | 715 |
| 17. Practicum : eye-tracker calibration and gaze-controlled GIS | May 09 | 16:20-17.55 | lab | 715 |
| 18. Human Stereopsis and Eyegrammetry – when it can be used? | **May 10** | 10:20-11:55 | lecture | 710 |
| 19. Eyetracking and non-coherent geospatial data fusion | May 10 | 12:10-13:45 | lecture | 710 |
| 20. Future begins now: Symbioses geospatial systems research | May 10 | 14:30-16:05 | lecture | 710 |

Head of Geodesy and Cadaster department: Jūratė Sužiedelytė Visockienė