

Mohammadmehdi Saberioon

Curriculum Vitæ — May, 2019

Laboratory of Signal and Image Processing, Faculty of Fisheries and Protection of Waters University of South Bohemia in Ceske Budejovice

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EDUCATION

- 2014 **PhD in Precision Farming Engineering**, Universiti Putra Malaysia
Thesis: Determination of chlorophyll and Nitrogen content in rice leaves at different growth stages.
- 2010 **MSc in Agrotechnology**, Universiti Putra Malaysia
Thesis: The Use of Remote sensing and Geographic Information system to determine the spatial distribution of Melaleuca cajuputi as a major bee plant in Marang.
- 2004 **BSc in Agricultural Engineering (Animal Science)**, Azad Islamic University, Iran

PROFESSIONAL APPOINTMENTS

- 2018– **Scientific Researcher**
Department of soil science and soil protection ,
Czech university of life science, Prague, Czech Republic
- 2015– **Scientific Researcher**
Laboratory of signal and Image processing, Institute of Complex system,
Faculty of Fisheries and protection of water
University of South Bohemia in Ceske Budejovice, Czech Republic
- 2014–2014 **Lecturer**
Asian leopard specialist society for 2nd Persian leopard Regional workshop
Iran.
- 2011–2013 **Research and Teaching assistance**
Institute of advanced technologies
Universiti Putra Malaysia
- 2011–2012 **Secretary**
11th Asian Apiculture Association conference and Apiexpo
Department of agriculture, Terengganu state, Malaysia
- 2010–2011 **Research assistance**
Workgroup mega science work in Agriculture
Academic science of Malaysia
- 2007–2008 **Research and Teaching assistance**
Faculty of Agriculture
Universiti Putra Malaysia.
- 2007–2008 **Agriculture officer**
Farayand Memari Consulting Company, Iran

GRANTS & FELLOWSHIPS

- 2019–2021 Automation and objectivization of fish predators monitoring. PI: Cisar, P., **co-PI: Saberioon, M.** NAZV Ministry of Environment. Award ID: QK1920102.

- 2018 Evaluating fish fillet quality changes due to diet alteration using hyperspectral imaging. PI: **Saberioon, M.**, co-PI: Cisar, P.. AquaExcel2020 (grant agreement No. 652831) TNA. Award ID: AE080016.
- 2017 Personalized aquaculture - non-invasive real-time fish identification. PI: Cisar, P., **co-PI: Saberioon, M.**. AquaExcel2020 (grant agreement No. 652831) TNA. Award ID: AE050006.
- 2017 Automated fish sampling in RAS using IREF system. PI: **Saberioon, M.**, co-PI: Cisar, P.. AquaExcel2020 (grant agreement No. 652831) TNA. Award ID: AE020007.
- 2017–2019 RemoteGuard: In-land water quality monitoring using Sentinel-2A images. PI: **Saberioon, M.**. TACR GAMA Amount: kč 996,000. Award ID: TG03010027.
- 2017–2019 A system for early detection of fish disease. PI: Cisar, P., **co-PI: Saberioon, M.**. TACR GAMA Amount: kč 998,400. Award ID: TG03010027.
- 2011–2013 Estimation of Mid-season nitrogen status and yield of rice by remote sensed data PI: Mohd Soom, M.A., **co-PI: Saberioon, M.**. RUGS Amount: 15000 RM. Award ID: 9199809.

AWARDS & HONORS

- 2012–2013 Recipient of fellowship from Universiti Putra Malaysia (UPM), Malaysia
- 2007–2008 Recipient of fellowship from Universiti Putra Malaysia (UPM), Malaysia
- 2004–2005 Distinct student of research from Islamic Azad University (IAU), Iran
- 2001–2002 First rank in academic program, Islamic Azad University (IAU), Iran

WORKSHOPS AND SHORT COURSES

- 2017 Visual computing trends, Vienna, Austria
- 2016 Hyperspectral imaging in industry, Graz, Austria
Chii 2017 – Perception park and Spectronet
- 2015 Precision Agriculture: The added value of geo-information and LBS
University of Natural Resources and Life Sciences, Vienna (BOKU)
- 2013 Real-time image and video processing
IEEE Malaysia
- 2012 Research Trend and Information Resources in Agriculture. CABI and University Putra Malaysia
CABI and University Putra Malaysia
Introduction of Teaching
Universiti Putra Malaysia
- 2011 Image processing using Matlab, IEEE Malaysia
IEEE Malaysia
- 2009 Academic writing,
Universiti Putra Malaysia

PUBLICATIONS

PEER-REVIEWED

- in Review **Saberioon, M.**, Cisar, P., Labbe, L., Soucek, P., Pelissier, P., . Spectral Imaging Application to Discriminate Different Diets of Live Rainbow Trout (*Oncorhynchus mykiss*). In review at *Computers and Electronics in Agriculture*. PeerJ preprint 6:e26562v1 doi:[10.7287/peerj.preprints.26562v1](https://doi.org/10.7287/peerj.preprints.26562v1)

- Lonhus, K., Stys, D., **Saberioon, M.**, Rychtarikova, R. : Segmentation of laterally Symmetric overlapping objects: application to images of collective animal behaviour. In review at *Applied Mathematics and Computation*. preprint arXiv:[1811.01373](#)
- Gholizadeh, A., **Saberioon, M.**, Viscarra Rossel, R. A., Borůvka, L., Klement, A. : Spectroscopic measurements and imaging of soil colour for soil organic carbon estimation. In review at *Geoderma*.
- 2018 Gholizadeh, A., Zizala, D., **Saberioon, M.**, Borůvka, L.: Soil organic carbon and texture retrieving and mapping using proximal, airborne and Sentinel-2 spectral imaging. *Remote Sensing of Environment*. doi:[10.1016/j.rse.2018.09.015](#).
- Gholizadeh, A., **Saberioon, M.**, Carmon, N., Borůvka, L., Ben-Dor, E.:Examining the Performance of PARACUDA-II Data-Mining engine versus Selected Techniques to Model Soil Carbon from Reflectance Spectra. *Remote Sensing* . doi:[10.3390/rs10081172](#).
- Saberioon, M.**, Cisar, P.: Automated Within Tank Fish Mass Estimation Using Infrared Reflection System. *Computers and Electronics in Agriculture* doi:[10.1016/j.compag.2018.05.025](#)
- Saberioon, M.**, Cisar, P., Labbe, L., Soucek, P., Pelissier, P., Kerneis, T. : Comparative performance Analysis of Support Vector Machine, Random forest, Logistic regression and k-nearest neighbours in Rainbow trout (*Oncorhynchus mykiss*) Classification Using Image-based Features. *Sensors* . doi:[10.3390/s18041027](#)
- Gholizadeh, A., **Saberioon, M.**, Ben-Dor, E., Borůvka, L.: Monitoring of selected soil contaminants using proximal and remote sensing techniques: Background, State-of-the-Art and Future perspective. *Critical reviews in environmental science and technology*. doi:[10.1080/10643389.2018.1447717](#)
- Cisar, P., **Saberioon, M.**, Pautsina, A., Kozak, P.: Fully contact less system for crayfish heartbeat monitoring: undisturbed crayfish as bio-indicator. *Sensors and Actuators B: Chemical*. doi:[10.1016/j.snb.2017.07.160](#)
- 2017 **Saberioon, M.**, Gholizadeh, A., Cisar, P., Pautsina, A., Urban, J.: Application of Machine Vision Systems in Aquaculture with Emphasis on Fish: State-of-the-Art and Key Issues. *Reviews in Aquaculture* doi:[10.1111/raq.12143](#)
- Gholizadeh, A., **Saberioon, M.**, Borůvka, L., Wayayok, A., Mohd Soom, M.A.: Leaf chlorophyll and nitrogen dynamics and relationship to lowland rice yield for site-specific paddy management. *Information Processing in Agriculture*. doi:[10.1016/j.inpa.2017.08.002](#)
- 2016 Gholizadeh, A., Borůvka, L., **Saberioon, M.**, Vat, R.: A Memory-Based Learning Approach as Compared to Other Data Mining Algorithms for the Prediction of Soil Texture Using Diffuse Reflectance Spectra. *Remote sensing* doi:[10.3390/rs8040341](#)
- Saberioon, M.**, Cisar, P.: Automate Multiple Fish Tracking in Three Dimension Using a Structured Light Sensor. *Computers and Electronics in Agriculture*. doi:[10.1016/j.compag.2015.12.014](#)
- 2015 Gholizadeh, A., Borůvka, L., **Saberioon, M.**, Vašát, R., Kozak, J., Nemecek, K.: Comparing Different Data Preprocessing Methods for Monitoring Soil Heavy Metals Based on Soil Spectral Features. *Soil and Water Research* doi:[10.17221/113/2015-SWR](#)
- Gholizadeh, A., Borůvka, L., **Saberioon, M.**: A Spectroscopic Approach to Assess Potentially Toxic Elements of Reclaimed Dumpsites in the Czech Republic. *International Journal of Environmental Science and Development* doi:[10.7763/IJESD.2015.V6.659](#)
- Gholizadeh, A., Borůvka, L., Vašát, R., **Saberioon, M.**, Klement, A., Kratina, J., Tehnecký, V., Drabek, O.:Estimation of Heavy Metals Contamination in Anthropogenic Soils on a Brown Coal Mining Dumpsite Using Reflectance Spectroscopy: A Case Study. *PLoS ONE*. doi:[10.1371/journal.pone.0117457](#)

- 2014 **Saberioon, M.**, Mohd Soom, M.A., Gholizadeh, A., Ezri, M.H.: A Review of Optical Methods for Assessing Nitrogen Contents during Rice Growth. *Applied Engineering in Agriculture*. doi:[10.13031/aea.30.10478](https://doi.org/10.13031/aea.30.10478)
 Gholizadeh, A., Mohd Soom, M.A., Borůvka, L., **Saberioon, M.**: Models for Paddy Soil Physical Properties Estimation Using Visible and Near Infrared Reflectance Spectroscopy. *Journal of Applied Spectroscopy* doi:[10.1007/s10812-014-9966-x](https://doi.org/10.1007/s10812-014-9966-x)
Saberioon, M., Mohd Soom, M.A., Anuar, A.R., Gholizadeh, A., Wayayok, A., Khirunniza-Bejo, S.: Assessment of Rice Leaf Chlorophyll Content Using Visible Bands at Different Growth Stages at Both Leaf and Canopy Scale. *International Journal of Applied Earth Observation and Geoinformation*. doi:[10.1016/j.jag.2014.03.018](https://doi.org/10.1016/j.jag.2014.03.018)
- 2013 Gholizadeh, A., Borůvka, L., **Saberioon, M.**, Vašát, R.: Visible, near-infrared and mid-infrared spectroscopy application for soil assessment with emphasis to soil organic matter content and quality: State-of-the-art and key issues. *Applied Spectroscopy* doi:[10.1366/13-07288](https://doi.org/10.1366/13-07288)
 Gholizadeh, A., Mohd Soom, M.A., **Saberioon, M.**, Borůvka, L.: Visible and Near Infrared Spectroscopy for Assessment of Paddy Soil Chemical Properties. *Journal of Food, Agriculture and Environment*. 11 (2): 859-866 doi:[10.1234/4.2013.4459](https://doi.org/10.1234/4.2013.4459)
Saberioon, M., Mohd Soom, M.A., Wayayok, A., Gholizadeh, A., Anuar, A.R.: Assessment of Colour Indices Derived from Conventional Digital Camera for Determining Nitrogen Status in Rice Plants. *Journal of Food, Agriculture and Environment*. 11 (2): 655-662 doi:[10.1234/4.2013.4391](https://doi.org/10.1234/4.2013.4391)
Saberioon, M., Mohd Soom, M.A., Wayayok, A., Anuar, A.R., Gholizadeh, A.: Multispectral Images Tetracam Agriculture Digital to Estimate Nitrogen and Grain Yield of Rice at Different Growth Stages. *Philippine Agriculture Scientists*. 96(1): 108-112
- 2012 Ibrahim I. F., Balasundram S. K., Nur-Ashikin P Abdullah A. S., Alias M. S., Mardan M. , **Saberioon, M.**: The Spatial Distribution of Apis Dorsata Host Plants Using an Integrated Geographical Information System-Remote Sensing Approach. *American Journal of Agricultural and Biological Sciences* doi:[10.3844/ajabssp.2012.396.406](https://doi.org/10.3844/ajabssp.2012.396.406)
- 2011 **Saberioon, M.**, Mardan M., Nordin L., Mohd Sood A. : Comparison of Fusion of Different Algorithms in Mapping of Melaleuca Forest in Marang District, Malaysia. *Pertanika Journal of Science and Technology*. 19(S): 97-105.
 Gholizadeh, A., Mohd Soom, M.A., Anuar A.R., Wayayok A., **Saberioon, M.**: Temporal Variability of SPAD Chlorophyll Meter Readings and its Relationship to Total Nitrogen in Leaves within a Malaysian Paddy Field. *Australian Journal of Basic and Applied Science*. 5(5): 236-245
- 2010 Gholizadeh, A., Mohd Soom, M.A., Anuar A.R., **Saberioon, M.**: Water Stress and Natural Zeolite Impact on Phisiomorphological Characteristics of Moldavian Balm (*Dracocephalum moldavica* L.). *Australian Journal of Basic and Applied Science*. 4(10): 5184-5190
 Gholizadeh, A., Mohd Soom, M.A., Anuar A.R., Esfahani M., **Saberioon, M.**: The Study on the Effect of Different Levels of Zeolit and Water Stress on Growth, Development and Essential Oil Content of Moldavian Balm (*Dracocephalum moldavica* L.). *American Journal of Applied Sciences*. Vol 7 (1): 33-37
Saberioon, M., Mardan M., Nordin L., Mohd Sood A., Gholizadeh, A.: Predict Location(s) of Apis dorsata Nesting Sites Using Remote Sensing and Geographic Information System in Marang district, Terengganu Malaysia. *American Journal of Applied Sciences*. Vol 7 (2): 252-259
- 2009 **Saberioon, M.**, Mardan M., Nordin L., Mohd Sood A., Gholizadeh, A.: Fusion SPOT-5 and Radarsat-1 Images for Mapping Major Bee Plants in Marang District, Malaysia. *European Journal of Scientific Research*. Vol 38 (3) :465-47

CONFERENCE PROCEEDINGS

- 2018 **Saberioon, M.**, Cisar, P., Labbe, L. In vivo Fish Diet Discrimination Using Selected Hyperspectral Image Classification Methods. Oral presentation at *9th Workshop on Hyperspectral Image and Signal processing: Evolution in Remote Sensing (IEEE-Whisper)*. Amsterdam, the Netherlands, September 2018.
- Gholizadeh, A., Zizala, D., **Saberioon, M.**, Borůvka, L.. Sentinel-2 for soil organic carbon retrieving and mapping in central Europe. Oral presentation at *21st World congress of soil science*. Rio de Janeiro, Brazil, August 2018.
- Saberioon, M.**, Cisar, P., Labbe, L., Soucek, P., Pelissier, P. Comparative study of different pre-processing methods for discriminating live fish based on hyperspectral Imagery. Oral presentation at *The Third international conference on advances in signal, image and video processing (Signal 2018)*, Nice, France, May 2018. Editors: Neves, A.J.R., Fesquet L., Trifan, A., Uhring W., Page: 21-24. ISBN: 978-1-61208-638-5.
- Gholizadeh, A., Zizala, D., **Saberioon, M.**, Borůvka, L.. Soil organic carbon content monitoring and mapping using airborne and Sentinel-2 spectral imaging, Proc. SPIE 10773, *Sixth international conference on Remote sensing and Geoinformation of the Environment (RSCy2018)*, Editor: Themistocleous K., Michaelides S., Ambrosia V., Papadavid G., Hadjimitsis D.G., 1077319. doi:[10.1117/12.2323820](https://doi.org/10.1117/12.2323820). ISBN: 978-151062117-6.
- 2017 **Saberioon, M.**, Cisar, P. Automated mass estimation of Sander lucioperca based on dorsal features using a time-of-flight camera. Oral presentation at *Aquaculture Europe 2017*. Dubrovnik, Croatia, October 2017.
- Kozk, P., **Saberioon, M.**, Pautsina, A., Cisar, P.. New improvement of system for crayfish heartbeat monitoring: Fully contactless system undisturb crayfish as bio-indicator. *European Crayfish Conference 2017: The IAA Cruise 2017*, 16-18 August 2017, Helsinki (Finland) and Stockholm (Sweden), p 16.
- Gholizadeh, A., **Saberioon, M.**, Ben-Dor, E., Borůvka, L.. Space-based Remote Imaging Spectroscopy of Soil Contamination. Poster presentation at *10th EARSeL SIG Imaging Spectroscopy Workshop*, Zurich, Switzerland. 19-21 April 2017.
- 2016 Gholizadeh, A., **Saberioon, M.**, Borůvka, L. Memory based learning: A new data mining approach to model and interpret Clay diffuse reflectance spectra. Oral presentation at *7th Global digital soil mapping workshop*, Aartus University, Denmark, 27 June-1 July 2016.
- Saberioon, M.**, Cisar, P., Urban, J. 3D Single Point Imaging Technology for Tracking Multiple Fish. In Book of *Proceedings of the 9th International Joint Conference on Biomedical Engineering Systems and Technologies*, Volume 4: Biosignals. Rome, Italy, February 2016. P 115-121. ISBN : 978-989-758-170-0
- Saberioon, M.**, Gholizadeh, A. Novel Approach for Estimating Nitrogen Content in Paddy Fields Using Low Altitude Remote Sensing System, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLI-B1, 1011-1015, doi:[10.5194/isprs-archives-XLI-B1-1011-2016](https://doi.org/10.5194/isprs-archives-XLI-B1-1011-2016).
- 2015 **Saberioon, M.**, Cisar, P., Kozak, P., Fot, M. Kinect-Based System for Monitoring Multiple Fish in An Aquarium. Oral presentation at *Aquaculture Europe 2015*, Rotterdam, Netherlands, October 2015.
- Saberioon, M.**, Gholizadeh, A. Application of multispectral cameras for estimating nitrogen and grain yield in paddy field. Poster presentation at *XIII Discussion in structural Molecular Biology*, Nove Hradý, Czech Republic, March 2015.
- 2014 Gholizadeh, A., Borůvka, L., **Saberioon, M.** A Spectroscopic Approach to Assess Potentially Toxic elements of Reclaimed Dumpsites in the Czech Republic. Oral Presentation at *2nd International Conference on Environment Pollution and Prevention (ICEPP 2014)*, Auckland, New Zealand, November 2014.
- Gholizadeh, A., Borůvka, L., **Saberioon, M.** Visible and Near Infrared spectroscopy of Anthropogenic soils on a brown coal mining dumpsite. Oral Presentation at *20th world congress of soil science*, Jeju Island, South Korea, June 2014.

- 2013 Gholizadeh, A., Borůvka, L., **Saberioon, M.** Rapid assessment of soil chemical properties using Vis-NIR spectroscopy. Oral presentation at *Soil in Space at Time*, Ulm, Germany, September 2013.
- Gholizadeh, A., **Saberioon, M.**, Mohd Soom, M.A.. Paddy soil nutrient assessment using visible and near infrared reflectance spectroscopy, *Proc. SPIE 8761, PIAGENG 2013: Image Processing and Photonics for Agricultural Engineering*, 87610S (March 4, 2013); doi:[10.1117/12.2019664](https://doi.org/10.1117/12.2019664), Honghua Tan, Sanya, China, January 2013.
- Gholizadeh, A., Mohd Soom, M.A., **Saberioon, M.** Soil properties assessment using Vis-NIR spectroscopy. Oral presentation at *the 11th International Conference on Precision Agriculture (11th ICPA)*, Indianapolis, Indiana, United States, July 2012.
- 2012 **Saberioon, M.**, Mohd Soom, M.A., Gholizadeh, A.. Estimation of Nitrogen of Rice in Different Growth Stages Using Tetracam Agriculture Digital Camera. Oral presentation at *the 11th International Conference on Precision Agriculture (11th ICPA)*, Indianapolis, Indiana, United States, July 2012.
- 2011 Gholizadeh, A., Mohd Soom, M.A., **Saberioon, M.** Relationship between apparent electrical conductivity and soil physical properties in a Malaysian paddy field. Poster in *1st Spatial Statistics Conference 2011*, Enschede, The Netherlands, March 2011.
- 2010 **Saberioon, M.**, Gholizadeh, A., Traditional Water Tunnels (Qanats) in Iran. Paper presented at *the 4th International conference on water resources and arid environment*. Riyadh, Saudi Arabia. Dec 2010 (P233-238)
- Saberioon, M.**, Mardan M., Nordin L., Mohd Sood A., Gholizadeh, A.. Predict Location(s) of Apis dorsata Nesting Sites Using Remote Sensing and Geographic Information System in Melaleuca forest. Poster presented at *PRPi2010. Universiti Putra Malaysia*, Serdang, Malaysia. July 2010.
- Saberioon, M.**, Mardan M., Nordin L., Mohd Sood A. Fusion SPOT-5 and Radarsat-1 Images for mapping Major bee plants in Marang district, Malaysia. Poster presented at *PRPi2010. Universiti Putra Malaysia*, Serdang, Malaysia, July 2010.
- Saberioon, M.**, Mardan M. , Nordin L., Mohd Sood A., Gholizadeh, A.. Use the remote sensing and geographic information system to predict Apis dorsata nesting sites in Marang, Terengganu. Paper presented at *the MRSS 6th International remote sensing and GIS conference and exhibition*. Kuala Lumpur, Malaysia. April 2010
- 2009 **Saberioon, M.**, Mardan M., Nordin L., Mohd Sood A. Mapping Melaleuca Forest Using Fusion SPOT-5 and Radarsat-1 Images in Marang District, Malaysia. Paper presented at *the International Advanced Technology Congress 2009 (ATCi2009)*, Kuala Lumpur, Malaysia Nov 2009
- Gholizadeh, A., **Saberioon, M.** Evaluation of leaf total Nitrogen content for Nitrogen management in a Malaysia Paddy field by using SPAD Chlorophyll meter. Paper presented at *the Third Asian Conference on Precision Agriculture (3rd ACPA)*, Beijing, China Oct 2009
- Gholizadeh, A., **Saberioon, M.** The Effect of Water stress and natural Zeolite on physio-morphological characteristics of Moldavian balm. Paper presented at *the International Symposium of the Australian Society for Engineering in Agriculture 2009 (SEAg2009)*, Global warming, Brisbane, Australia Sep 2009
- Mardan M., **Saberioon, M.**, Nordin L., Mohd Sood A. Using remote sensing and GIS in locations prediction to establish rafter beekeeping (Tingku) Technique in Marang district, Malaysia. Paper presented at *the 41st Congress Apimondia 2009*, Montpellier, France Sep 2009

BOOK CHAPTER

- in Press Mustafa, B.M., Fadhil Al-Quraishi, A.M., Gholizadeh, A., **Saberioon, M.** Chapter 5: Proximal Soil Sensing for Soil Monitoring. *Environmental Remote Sensing and GIS in Iraq*, Editors: Ayad M. Fadhil Al-Quraishi and Abdelazim M. Negm, Springer International Publishing Switzerland. doi:[10.1007/978-3-030-21344-2](https://doi.org/10.1007/978-3-030-21344-2), ISBN: 978-3-030-21343-5 (Print) 978-3-030-21344-2 (Online)

- 2019 Bekkozhayeva, D., **Saberioon, M.**, Cisar, P.. Image Based Individual Identification of Sumatra Barb (*Puntigrus Tetrazona*). *Bioinformatics and Biomedical Engineering*, pp 116-119, Editors: Rojas I., Valenzuela O., Rojas F., Ortuo F., Springer International Publishing Switzerland, doi:[10.1007/978-3-030-17938-0₁₁](https://doi.org/10.1007/978-3-030-17938-0_11), ISBN: 978-3-030-17937-3 (Print) 978-3-030-17938-0 (Online)
- 2016 Stys, D., Nahlik, T., Machek, P., Rychtrikov, R., **Saberioon, M.**. Least Information Loss (LIL) Conversion of Digital Images and Lessons Learned for Scientific Image Inspection. *Bioinformatics and Biomedical Engineering*, pp 527-536, Editors: Ortuo, F., Rojas, I., Springer International Publishing Switzerland, doi:[10.1007/978-3-319-31744-1₄₇](https://doi.org/10.1007/978-3-319-31744-1_47), ISBN: 978-3-319-31743-4 (Print) 978-3-319-31744-1 (Online)

GRANTED PATENTS

- 2018 Cisar, P., **Saberioon, M.**, Soucek, P. Contactless detection of fish disease and devises for carrying out this method , Czech Industrial property office, Praha.
patent number: 307309.
- 2016 Cisar, P., **Saberioon, M.**, Fort, M., Kozak, P. Detection and visualization method of spatial trajectories of movement of water animals and apparatus for making the same. Czech Industrial property office, Praha.
patent number. 305982.

SOFTWARE

- 2018– **RemoteGuard** – <http://auc.cz/software/2018.php> – A Python interface for Water quality monitoring using Sentinel-2.
- 2018– **RemoteChange** – <http://auc.cz/software/2018.php> – A Python interface for Water quality change tracking using Sentinel-2.

TEACHING

- 2014 Introduction to remote sensing, GIS and GPS :
2nd Persian Leopard Regional Workshops.
Organized by Asian Leopard Specialist Society and funded by United Nation Development program (UNDP) and Department of Environment of Iran.
- 2012–2013 Precision Agriculture
MSc. in Agricultural Engineering – Universiti Putra Malaysia
- 2012–2013 Precision Irrigation
MSc. in Agricultural Engineering – Universiti Putra Malaysia
- 2008–2009 Agriculture and Human
BSc in Agriculture – Universiti Putra Malaysia

STUDENT SUPERVISION

- 2019–2023 Hassan Nazari (PhD student – co-Supervisor)
Research topic: Changes in fish behaviour under stress conditions.
Institute of Complex system, University of South Bohemia, Czech Republic.
- 2018 Vojtch Vrba, Seyed Ali SadatMousavi (Summer school students - Supervisor)
Project title: Deep learning for Hyperspectral imagery classification
Institute of Complex system, University of South Bohemia, Czech Republic.
- 2016 Itzel Fernanda Marban Salinas (Summer school students - Supervisor)
Project title :Water feature extraction and change detection using Multi-Temporal Sentinel-2A imagery.
Institute of Complex system, University of South Bohemia, Czech Republic.

2010–2012 Fatimah Izzat bt Ibrahim (Master student – Co-Supervisor)
Faculty of Agriculture, Universiti Putra Malaysia.

OUTREACH

2009 Documentry for Channel Discovery Asia: *Eye on Malaysia: Honey Hunters.*, [YouTube link](#)

PRESENTATIONS

2018 [Invited] – **Saberioon, M.** Application of Machine Vision System in Aquaculture, *The Norwegian colour and computing laboratory, NTNU, Nov 2018*, Gjvik, Norway.
2017 [Invited] – **Saberioon, M.** Introduction in Remote Sensing, *Institute of Complex System, FROV, JCU, Nove Hradý, Czech republic.*

ACADEMIC SERVICE & AFFILIATIONS

COMMITTEES

2011–2012 Secretary for the Student Chapter of Malaysian remote sensing and GIS Society.

REVIEWER

2019 Remote sensing, Aquaculture, Computers and Electronics in Agriculture
2018 Remote sensing, Journal of sensors, Sensors. Aquaculture, Computers and Electronics in Agriculture, PlosONE, European journal of remote sensing, Science of total environment.
2017 Computers and Electronics in Agriculture, International journal of Food properties, Environment development, Agriculture, Remote sensing, International journal of geo-information, Infrared physic and technology, Journal of Imaging, Sensors.
2016 Scientific reports, Aquaculture engineering, Rice science
2015 Journal of integrative Agriculture
2014 PLoS One, International journal of remote sensing, Chinese optic letters

AFFILIATIONS

IEEE – IEEE Signal Processing Society – International Society of Precision Agriculture – Malaysian Remote Sensing Society – International Society for Horticulture Science – IEEE Geoscience and Remote Sensing Society