

# 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 2<sup>nd</sup> Persian leopard Regional workshop  
Iran.
- 2011–2013 **Research and Teaching assistance**  
Institute of advanced technologies  
Universiti Putra Malaysia
- 2011–2012 **Secretary**  
11<sup>th</sup> 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

- 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

- 2019 Gholizadeh, A., **Saberioon, M.**, Viscarra Rossel, R., Borůvka, L., Klement, A. Estimation of Soil Organic Carbon using Colour Features Derived from Digital Camera. Oral presentation at *EGU General Assembly 2019*. Vienna, Austria, March 2019.
- 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*, Montpelier, 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\\_5](https://doi.org/10.1007/978-3-030-21344-2_5), ISBN: 978-3-030-21343-5 (Print) 978-3-030-21344-2 (Online)
- 2019 Bekkozhaeva, 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:[10.1007/978-3-030-17938-0\\_11](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:[10.1007/978-3-319-31744-1\\_47](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 devices 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 Vojtech 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 Documentary 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 Hrad, 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