



Laurent DEMAGISTRI

47 years, French.

IRD - Maison de la Télédétection

500 rue Jean-François Breton - 34093 MONTPELLIER (FR)

Tel : +33 4 67 54 87 01 / +33 6 77 05 88 61.

E-mail: laurent.demagistri@ird.fr.

Skills and Area of Expertise

Scientific computing and Remote Sensing images processing

Research and Development in processing remote sensing images and data streams :

- objects and processes detection out of images from various spatial resolutions (boats, palm trees, gradients, etc),
- images calibration and registration,
- bio-geophysical parameters and indices calculation (Sea Surface Temperature and Chlorophyll concentration maps, Vegetation Indices, Texture indices, etc.).

Experience in C/C++/Java development, scripting languages and standard satellite images processing softwares (ENVI, ERDAS, OTB/Monteverdi, etc.).

Teaching and training experience in Remote Sensing

Responsible for several years of the "Space Imaging and Management of Renewable Resources" teaching unit at the University of Montpellier (MASTER in Geomatics) and of some lectures and training sessions in the SILAT Specialized MASTER (AgroParisTech).

Current position (From 2007)

French Research Institute for Development (IRD –Montpellier, France)

Geo-informatics and Information Systems engineer

Expert in Remote Sensing and image processing in the UMR ESPACE-DEV laboratory.

In charge of the valorization of the laboratory activities (identify data, tools, algorithms and methods used or developed by searchers).

Involved within several research projects of the laboratory as remote sensing images specialist : research activities around image processing workflows, field missions, work reports, educational support for students, etc.

Geodev project : design of computer equipments and network, implementation of data processing workflows, data portals design and management, towards a generic Spatial Data Infrastructure to manage the data acquired by Satellite Data Receiving stations.

Experience

2002

French Research Institute for Development (IRD – Montpellier, France)

2007

Software engineer, GIS and remote sensing specialist

Involved in several research and development projects of the ESPACE laboratory (IRD, US 140) and responsible of the satellite data processing activities developed and used within the SeasNet receiving stations network (French Guyana, Canaries Islands, Reunion Island, New Caledonia): Definition of common new specifications, supervision of developments, upgrade of the satellite data processing tools.

1996

GEOIMAGE (Sophia Antipolis, France)

1999

Software engineer

Development of software and image processing programs integrated within the GEOimage cartographic workshop.

Thematic projects management.

GEOimage software promotion and customers training.

System administration.

1994

French Research Institute for Development (French Guyana, France)

1995

Geographic Information System and computer specialist

Realization of cartography projects (rainforest environment) from satellite and airborne images.

Training in system administration : maintenance of the Unix workstations and the PCs of the Remote Sensing Laboratory.

1992
1994

GEOIMAGE (Sophia Antipolis, France)

PhD student

Development and improvement of a forest fires simulation software relying on geographic data derived from satellite products.

Work within an European project dealing with the forest fires modeling and involving several research laboratories specialized in mathematics, fuel study, climatology, fluid mechanics, image processing.

Languages and International experience

Languages Fluent in French, English.

Experience France, French Guyana, Reunion Island, Tahiti, New Caledonia, Spain, Italy, Greece, Indonesia, Pakistan, Haiti, Tunisia, Brazil, etc.

Education

1992: Postgraduate Degree (DEA) in Imagery and applied mathematics, Nice Sophia Antipolis University.

1991 Master Degree in applied mathematics, Nice Sophia Antipolis University.

1987: « Baccalauréat » degree in Math and Physics.

Publications

Book chapters :

- Ose, K., Corpetti, T. and **Demagistri, L.** 2016. Multispectral Satellite Image Processing. In : Optical Remote Sensing of Land Surface, *Techniques and Methods*. Elsevier Science Ltd. ISBN: 9781785481024.

International journals :

- Santos, A.M., Mitja, D.; Delaître, E., **Demagistri, L.**, Miranda, S.I., Libourel, T. & Petit, M., (*submitted June 2016*). Estimating babassu palm density using automatic palm tree detection with very high spatial resolution satellite images. *Journal of Environmental Management*.
- Corbane, C., Najman, L., Pecoul, E., **Demagistri, L.**, Petit, M., 2010. A complete processing chain for ship detection using optical satellite imagery. *International Journal of Remote Sensing* 31, 5837–5854.
- Corbane, C., Najman, L., Pecoul, E., **Demagistri, L.**, Petit, M., 2009. Fully automated procedure for ship detection using optical satellite imagery. *International Journal of Applied Earth Observation and Geoinformation*.
- **Demagistri, L.**, Laureore, L. and Limozin, P., 1995. Use of remote sensing data in a forest fire simulation software-Geofeu. *EARSeL Advances in Remote Sensing*, 4(3):71-77

International workshops :

- **Demagistri, L.**, Mitja, D., Delaître, E., Yazdanparast, E., Shahbazkia, H., Petit, M., 2014. Palm-trees detection with very high resolution images, comparison between Geosyde and Pléiades sensors. Pléiades Days, CNES, 01-03 avril 2014, Toulouse, France.
- **Demagistri, L.**, Lin, Y., Libourel, T., 2012. Observatoire virtuel pour diffuser et réutiliser l'expertise en télédétection. *Proceedings of SAGEO 2012*, Belgium.
- Faure, J.F., Seyler, F., Briand, D., Desconnets, J., **Demagistri, L.**, Pierkot, C., 2012. Dynamic mapping in direct receiving satellite data conditions : calibrating multitemporal data sets for automated knowledge extra. 1st Workshop on Temporal Analysis of Satellite Images.
- Petit, M., Ose, K., Rechal, D., **Demagistri, L.**, Stach, N., Faure, J.F., 2009. Méthodologie générique de production dynamique de mosaïque multi-capteur satellitaire et multi-usage en milieu forestier tropical : application en Guyane Française dans le cadre du protocole de Kyoto. *International Conference "Knowledgebased management of Tropical Rainforests*.
- Corbane, C., Pecoul, E., **Demagistri, L.**, Petit, M., 2008. Fully automated procedure for ship detection using optical imagery, *Proceeding of SPIE. Colloque Remote Sensing of Inland, Coastal, and Oceanic Waters, Nouvelle-Calédonie*. Doi:10.1117/12.805097