



The 2nd International Conference on Geomatics

MORGEO'20

Under the theme

"GEOSPATIAL INTELLIGENCE: SOLUTIONS AND NEW CHALLENGES"

Scheduled on April 15-16, 2020 | Hassania School of Public Works Casablanca.
Morocco

Due to the Covid-19 pandemic, it moved to virtual conference
on May 11-13, 2020

DETAILED PROGRAM

Main Program

Monday, May 11 th , 2020		
10h – 11h	Opening Ceremony	click to join Opening Ceremony
11h – 12h30	<p>Keynote I: Youness Dehbi, Senior researcher & lecturer at Institute of Geodesy and Geoinformation, University of Bonn, Germany Talk: Statistical Relational Learning and Probabilistic Reasoning for 3D Indoor/Outdoor Seamless Modelling</p> <p>Keynote II : Rafika Hajji, Associate professor at IAV Institut, Morocco Talk : BIM potential for urban intelligent modeling and Simulations: New Trends and challenges</p> <p>Keynote Chair: Prof. El brirchi El Hassan, EHTP, Morocco</p>	click to join Keynotes 1 & 2
12h30 – 13h	Break	
13h - 15h	<p>Session 1 Geo-Intelligence: Smart City Chairs: Prof. Guennoun Karim, EHTP & Prof. Hassane Jarar Oulidi, EHTP</p>	click to join session 1
	<p>Session 2 Geo-Intelligence: Smart Data Chairs: Prof. Rhinane Hassan, FS Ain Chock, Casablanca & Prof. Fadil Abdelhamid, EHTP</p>	click to join session 2
	<p>Session 3 Geo-Sciences: Agriculture, Water & urban development Prof. Hakdaoui Mustapha, FS Ben M’Sik, Casablanca & Prof Hbiak Ishak, EHTP</p>	click to join session 3

*Open links with Google Chrome

Tuesday, May 12th, 2020		
11h - 12h30	<p><u>Keynote III:</u> Wassim Mohamed BABA, Researcher at Laboratory of Space Geophysics and Oceanography Studies (LEGOS), France Talk: Application of remote sensing to model snowpack evolution in the High Atlas</p> <p><u>Keynote IV:</u> Hassane Jarar Oulidi, Professor of geoinformatics at EHTP, Expert in Geospatial Technologies, Morocco Talk: Spatial Data on Water</p> <p><u>Keynote Chair :</u> Prof Malaainine Mohamed EL Imame, EHTP, Morocco</p>	click to join Keynotes 3 & 4
12h30 – 13h	Break	
13h - 15h	<p style="text-align: center;"><u>Session 4</u> Geo-Intelligence: Spatial Data Analysis Chairs: Prof. Saadane Abderrahime, Mohamed V University Rabat & Prof. El brirchi El Hassan, EHTP</p>	click to join session 4
	<p style="text-align: center;"><u>Session 5</u> Geo-Sciences: Geology Chairs: Prof. Hassane Jarar Oulidi, EHTP & Prof. Lahssen Baidder, FS ain chock, Casablanca</p>	click to join session 5
	<p style="text-align: center;"><u>Session 6</u> Poster Prof. Barramou Fatimazahra, EHTP & Prof. Rachik Zineb, EHTP</p>	click to join session 6

*Open links with Google Chrome

Wednesday, May 13 th , 2020		
11h - 12h30	<p><u>Keynote V:</u> Jean-Philippe Morisseau, Chief Operating Officer of GEOIDE & a part-time lecturer at ENSG, France</p> <p>Talk: What opportunities for geospatial intelligence and Smart Cities?</p> <p><u>Keynote VI:</u> Abdelhamid FADIL, Professor of Geomatics & Data Science, Head of Data Engineering Master Degree, (EHTP, Morocco)</p> <p>Talk: Using open earth observation data and cloud computing for natural resources assessment in developing countries</p> <p><u>Keynote Chair:</u> Prof. Mansouri Khalifa, ENSET Mohammedia, Morocco</p>	click to join keynotes 5 & 6
12h30 – 13h	Break	
13h - 15h	<p style="text-align: center;"><u>Session 7</u></p> <p style="text-align: center;">Geo-Intelligence: AI & Remote Sensing</p> <p style="text-align: center;">Chairs: Prof. Abdelhamid Fadil, EHTP & Prof. Barramou Fatimazahra, EHTP</p>	click to join session 7
	<p style="text-align: center;"><u>Session 8</u></p> <p style="text-align: center;">Geo-Data: Geodesy / Geophysics</p> <p style="text-align: center;">Chairs: Prof. Saadane Abderrahim, Mohamed V University Rabat & Prof. Malaanine Mohamed EL Imane, EHTP</p>	click to join session 8
	<p style="text-align: center;"><u>Session 9</u></p> <p style="text-align: center;">Geo-Sciences: Environment & Renewable Energy</p> <p style="text-align: center;">Chairs: Prof. Mansouri Khalifa, ENSET Mohammedia & Prof. El Hatimi Badr, EHTP</p>	click to join session 9
15h – 16h	Closing Ceremony	
		click to join Closing Ceremony

*Open links with Google Chrome

DETAILED PROGRAM

Monday, May 11th, 2020

10:00 : Opening Ceremony

11:00 : Keynote I: Youness Dehbi, Senior researcher & lecturer at Institute of Geodesy and Geoinformation, University of Bonn, Germany

Talk: Statistical Relational Learning and Probabilistic Reasoning for 3D Indoor/Outdoor Seamless Modelling

Keynote II: Rafika Hajji, Associate professor at IAV Institut, Morocco

Talk: BIM potential for urban intelligent modeling and Simulations: New Trends and challenges

Chair: Prof. El brirchi El Hassan, EHTP, Morocco

12:30 : Break

13 :00 : Sessions 1, 2 & 3

Session 1 / Geo-Intelligence: Smart City

Sofia Hakdaoui, Anas Emran and Faiz Oumghar

Mobile Mapping, Machine Learning and Digital Twin for Road Infrastructure monitoring and maintenance: Case study of Mohammed VI Bridge in Morocco

Laila Mastouri, Sara Jebari, Imane Sebari, Sara Ait-Lamallam and Nabil Mequedade
Towards the development of a BIM process for infrastructure and its use in the management of highways

Mezzour Ghita, Benhadou Siham, Medromi Hicham, Ait El Mahjoub Abdelhafid and Deshayes Laurent

Geospatial business intelligence and cloud services for context aware digital twins development

Norelyaqine Abderrahim, Saadane Abderrahim and Azmi Rida

Road Segmentation using U-Net architecture



Meryem Hamidi, Omar Bouattane and Abdelhadi Raihani
Microgrid Energy Management System: Technologies and Architectures Review



Mariam Cherrabi, Mohammed Benbrahim and Jaouad Boutahar
Adaptive Enterprise Architecture M-NEA for Moroccan National system: Towards Moroccan smart-government

Zouhair Ballouch, Rafika Hajji and Mohamed Ettarid
The contribution of Deep Learning to the semantic segmentation of 3D point-clouds in urban areas

Session 2 / Geo-Intelligence: Smart Data

Said Ouiazzane, Malika Addou and Fatimazahra Barramou
Toward a Network Intrusion Detection System for Geographic Data

Badr El Hatimi, Hassane Jarar Oulidi and Abdelhamid Fadil
Quality assessment in Volunteered Geographic Information for Risk Management applications

Fouad Sassite, Malika Addou and Fatimazahra Barramou
A smart data approach for Spatial Big Data analytics

Meryem Fakhouri Amr, Bouchaib Riyami, Khalifa Mansouri and Mohammed Qbadou
Interoperability of Hospital Information Systems through the modeling of the Web Service "Request for medical care"

Anass Rghioui
Managing Patient Medical Record using Blockchain

Driss Bari, Mohamed Ameksa and Abdelali Ouagabi
A comparison of datamining tools for geo-spatial estimation of visibility from AROME-Morocco model outputs in regression framework

Sara Abas, Malika Addou and Zineb Rachik
Social network information analysis for extraction of concept success rate within a geographic location

Session 3 / Geo-Sciences : Agriculture, Water & urban development

Asmae Dakir, Bachir Alami Omar and Fatimazahra Barramou
Crop type mapping using optical and radar images: a review

Moussa Saadani, Omar Bachir Alami and El Hassan El Brirchi
Monitoring of long term land degradation trends based of Landsat observations — The case of land productivity trends in Souss-Massa Region



AMAGEO



المدرسة الحسانية للأشغال العمومية
ECOLE HASSANIA DES TRAVAUX PUBLICS



Hibatoullah Laachrate, Abdelhamid Fadil and Abdessamed Ghafiri

Drought monitoring of some Moroccan agricultural areas: Settat and Meknes using remote sensing techniques and a soil moisture-based drought index

Hanane Souidi, Latifa Ouadif, Lahcen Bahi, Lahouari Bounoua, Raounak Edderkaoui and Driss Elhachmi

Contribution of GIS, GIS-Cloud and Remote Sensing In Agricultural Sustainability Using Smart Biosolutions in Coastal Chaouia, Morocco

Youssef Elmdari, Abdelouahed Namir and Mustapha Hakdaoui

The Impact of Rapid Urbanization and Population Growth on the City Shape of Casablanca Morocco Using Remote Sensing

Jibrin Gambo, Helmi Zulhaidi Bin Mohd Shafri, Yusuf Ahmed Yusuf, Ahmed Abubakar, Bashir Sabo Babura and Ahmed Muhammad Idris

Utilization of Earth Observation Technology for Mapping Spatio-temporal Changes of Urban Water Bodies (Ponds) and its Environmental Impacts in Hadejia, Nigeria

Aicha Ousshire, Abdessamad Ghafiri and Hassane Oulidi Jarar

Groundwater Flooding in Urban Areas: Occurrence process, Potential Impacts and The Role Of Remote Sensing And GIS Techniques in Preventing It

Tuesday, May 12th, 2020

11:00 : Keynote I: Wassim Mohamed BABA, Researcher at Laboratory of Space Geophysics and Oceanography Studies (LEGOS), France

Talk: Application of remote sensing to model snowpack evolution in the High Atlas

Chair : Prof. Malaainine Mohamed EL Imame, EHTP, Morocco

Keynote II: Hassane Jarar Oulidi, Professor of geoinformatics at EHTP, Expert in Geospatial Technologies, Morocco

Talk: Spatial Data on Water

Chair : Prof. Malaainine Mohamed EL Imame, EHTP, Morocco

12:30 : Break

13:00 : Sessions 4, 5 & 6

Session 4/ Geo-Intelligence: Spatial Data Analysis



Mohamed El Imame Malaainine and Hatim Lechgar

Conception of a Geocoding Matching Algorithm for Casablanca City - Morocco



المدرسة الحسانية للأشغال العمومية
ECOLE HASSANIA DES TRAVAUX PUBLICS



Otmane Idrissi, Abdelmounaime Bikir, Mohammed Qbadou, Khalifa Mansouri and Youssfi Mohamed
Enhancing Air traffic flow arrival management by optimizing speed profile: Casablanca Terminal Area Case study

Elmostafa Achbab, Dennoun Saifaoui and Hassan Rhinane
Developing and applying a GIS-Fuzzy AHP assisted approach to locating a hybrid renewable energy systems with high potential: Case of Dakhla region –Morocco-

Raounak Edderkaoui, Driss Khomsi, Ahmed Hamidi, Hicham Bennani Baiti, Hanane Souidi, Driss Elhachmi and Mohammed Aqil
Application of analytical hierarchy process and GIS to analyse management plans for household and similar waste in Marrakech prefecture, Morocco

Hbiak Ishak, Bachir Alami Omar, Elbrirchi Elhassan and Adidi Abdelaziz
Measurement of the urban sprawl of Casablanca between 1984 and 2018 and the comparison of its evolution with the evolutions of the population and the private and public transport equipment

Fatma El Mahmoudi, Oum Elkheir Abra, Abdelhadi Raihani, Ouafae Serrar and Lhoucine Bahatti
GIS Based Fuzzy Analytic Hierarchy Process for wind Energy Sites Selection in Tarfaya Morocco

Fouzia Bayad, Abdelilah Azyat, Anas El Boukhari El Mamoun, Nizar Ben Achhab and Naoufal Raissouni
Analyzing Education Data Using GIS: Case ofTangier-Tetuan-Al Hociema Region

Session 5 / Geo-Sciences: Geology

Adnane Labbaci, Said Moukrim, Said Lahssini, Said Laaribiya and Hicham Mharzi Alaoui
An assessment of soil erosion in Western High Atlas of Morocco: an application to Ain Asmama site

Imane Bachri, Mustapha Hakdaoui, Mohamed Raji and Abdelmajid Benbouziane
Geological mapping using Random Forests applied to Remote Sensing data: a demonstration study from Msaidira-Souk al Had, Sidi Ifni inlier (Western Anti-Atlas, Morocco)

El Mahdi Ben Sayah, Najib Saber, Soufiane Maimouni and Mariame Kholaiq
Hydrothermal alteration mapping using ASTER in IMITER Anti-Atlas

Meryem Taoufik, Ikram Loukili, Hassan El Hadi and Bouamar Baghdad
Soil erosion risk assessment in an extraction area: Case of abandoned quarries in the Akreuch region (Morocco)



Session 6 / Poster

Imane Ait Lhaj Ali, Mourad Bouziani and Reda Yaagoubi

Fitting a Global Geopotential Model as an alternative for a local gravity geoid model

Abdellah Azougay, Halima Rezqi, Mostafa Oujidi and Najat Amarjouf

Integrated approach and application of GIS for management of geotechnical data

Kamal Belhadj

Methodology for mapping natural hazards linked to land movements in the Provinces of Nador and Driouch

Khaoula Lagrini, Abdessamad Ghafiri and Abdellah Ouali

Mapping vulnerability to hot weather conditions in Morocco

Najat Amarjouf, Mostafa Oujidi and Abdellah Azougay

Flood hazard mapping in an urban area: Case of ephemeral creeks in Beni Ansar city

El Houssaine Ouharba, Zine El Abidine Triqui and Rachid Moussadek

The Bouregreg Watershed Water Vulnerability Assessment (Morocco), in the face of Climate change

Mahmoudi Lhoussain, Benalioulhaj Nourredine and Labraimi Mustapha

Preliminary mineralogical and geochemical data for fractions <2 μm from the Maastrichtian-Paleocene-Eocene Phosphated Series of Al Borouj, Morocco.

Mohamed Ougadire, Moha Ikenne, Yves Geraud, Icame Nourissaid, Said Boutaleb and Marc Diraison

Fracture network mapping and petrophysical properties of the basement rocks: a case study of the Sidi Ifni inlier (Western Anti-Atlas, Morocco)

Wednesday, May 13th, 2020

11:00 : Keynote I: Jean-Philippe Morisseau, Chief Operating Officer of GEOIDE & a part-time lecturer at ENSG, France

Talk: What opportunities for geospatial intelligence and Smart Cities?



Chair: Prof. Mansouri Khalifa, ENSET Mohammedia, Morocco

Keynote II: Abdelhamid FADIL, Professor of Geomatics & Data Science,
Head of Data Engineering Master Degree, (EHTP, Morocco)

Talk: Using open earth observation data and cloud computing for
natural resources assessment in developing countries

Chair: Prof. Mansouri Khalifa, ENSET Mohammedia, Morocco

12:30 : Break

13:00 : Sessions 7, 8 & 9

Session 7 / Geo-Intelligence: IA & Remote Sensing

Azmi Rida, Amar Hicham and Norelyaqine Abderrahim

Generate knowledge base from very high spatial resolution satellite image using robust classification rules and genetic programming

Sulaiman Mahyoub, Hassan Rhinane, Mehdi Mansour, Abdelhamid Fadil and Mohammed Saleh

Using of Open Access remote sensing Data in Google earth engine platform for mapping built-up area in Marrakech City, Morocco

Mouad Alami Machichi, Abderrahim Saadane and Peter L. Guth

On the viability of Neural Networks for landslide susceptibility mapping in the Rif, North of Morocco

Imad Hamdi, Yassine Tounsi, Mohammed Benjelloun and Abdelkrim Nassim

Batch despeckling of SAR images by a convolutional neural network-based method

Mustapha Skittou, Ouadia Madhoum, Abdelouahab Khannouss, Mohamed Merrouchi and Taoufiq Gadi

Classification of land use areas using remote sensing data with machine learning

Hatim LECHGAR, Mohamed El Imame MALAAININE and Hassan RHINANE

Spatio-temporal tracking of vehicles using Deep Learning, applied on aerial videos

Hassan Chafik, Mohamed Berrada, Anass Legdou, Aouatif Amine and Said Lahssini

Exploitation of spectral indices NDVI, NDWI & SAVI in Random Forest classifier model for mapping weak rosemary cover: application on Gourrama region, Morocco

Imane Serbouti, Mohammed Raji and Mustapha Hakdaoui

A comparison of GEOBIA Vs PBI machine learning methods for lithological mapping using sentinel 2 imagery: Case study of Skhour Rehamna, Morocco



AMAGEO



المدرسة القومية للأشغال العمومية
ÉCOLE HASSANIA DES TRAVAUX PUBLICS



Session 8 / Geo-Data: Geodesy & Geophysics

Mustapha Elouardi, Mohamed Karim Ben Hachemi and Moha El-Ayachi

Validation of integrated water vapor derived from global positioning system over Morocco

Elbirichi Elhassan

Moroccan geoid determination from spatial gravity using recent GGM

Tabti Lahouaria, Kahlouche Salem and Benadda Belkacem

Result of Precision and Integrity positioning in Algeria using EGNOS corrections

Ahmad Muhammad Idris, Daniel Eshimiakhe, Abdullahi Usman and Jibrin Gambo

Characterization of Lineament Structures Across Amethyst Mineralization Zones Using Aeromagnetic Data At North Central Kaduna State, Nigeria.

Session 9 / Geo-Sciences: Environment & Renewable Energy

Zakaria Mighouar, Laidi Zahiri, Hamza Khatib and Khalifa Mansouri

Comparison of analytical models with a numerical model estimating the stress concentration factor in dented steel pipes

Mustapha Jammoukh, Laidi Zahiri, Khalifa Mansouri and Essaid Abtal

Numerical characterization of a bio-charge at 45° of its fibers for a qualitative perspective of durable materials

Aziz Moumen, Mustapha Jammoukh, Laidi Zahiri and Khalifa Mansouri

Study Of The Optimal Micromechanical Behavior Of A Polymer Reinforced By Snail Shell Particles Using The Mori-Tanaka Numerical Model

Amal Soubki and Ahmed Fekri

Forecasting solar energy in a complex urban environment Case study: Casablanca, Morocco

Rachid Lambarki, Mehdi Maanan, Abdelhamid Fadil and Hassan Rhinane

The evaluation of the photovoltaic potential in urban environment Case of the Nador city / Morocco

15h: Closing Ceremony