Si Mokrane SIAD

LinkedIn: https://www.linkedin.com/in/siadsim/

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WORK EXPERIENCE

31/01/2022 – 31/12/2022 Valenzano, Italy

INTERNATIONAL WATER MANAGEMENT AND MODELLING EXPERT INTERNATIONAL CENTRE OF ADVANCED MEDITERRANEAN AGRONOMIC STUDIES (CIHEAM)

1. Design and develop hydrologic and agronomic models for water management and modelling.
2. Conduct research on water usage and management practices, and analyze the data collected.
3. Develop evaluation and assessment tools to monitor the effectiveness of water management and modelling efforts.
4. Create and implement strategies to optimize water resource management.
5. Design, develop, and implement water conservation and efficiency projects.
6. Provide technical guidance and advice to the relevant stakeholders.
7. Develop communication and educational materials related to water management and modelling.
8. Participate in research projects and collaborate with other experts in the field.
9. Develop plans and strategies to address water security issues and water pollution.
10. Advise on water-related policy and legislative issues.
11. Monitor and evaluate the effectiveness of water management and modelling efforts.
12. Coordinate with other experts to ensure the successful implementation of water management and modelling plans.

Business or Sector Professional, scientific and technical activities |

Department CIHEAM (Centre International de Hautes Etudes Agronomiques Méditerranéennes) | **Email** iamdir@iamb.it |

Website www.iamb.it

01/07/2022 – 15/07/2023 Rom, Italy

RESEARCHER UNIVERSITY OF ROME - LA SAPIENZA

1. Design and develop a research plan for the use of SAR for soil moisture retrieval, including selecting and testing appropriate methods and technologies.
2. Develop and implement a strategy for the collection and analysis of data from SAR for soil moisture retrieval.
3. Develop and implement efficient algorithms for the analysis and interpretation of SAR data for soil moisture retrieval.
4. Utilize advanced statistical models and methods to interpret and analyze SAR data.
5. Develop and utilize graphical user interfaces to visualize SAR data.
6. Analyze and interpret SAR data to identify patterns and trends in soil moisture across various regions.
7. Identify and evaluate emerging trends and technologies in SAR for soil moisture retrieval.
8. Design and develop software applications for the analysis and interpretation of SAR data.
9. Prepare reports summarizing and presenting SAR research results.
10. Present research results and findings at relevant conferences and meetings.
11. Collaborate with other researchers and professionals to share ideas and knowledge in the field.
12. Stay up-to-date on the latest developments in SAR for soil moisture retrieval.

Business or Sector Information and communication |

Department Department of Information Engineering, Electronics and Telecommunications |

Address Piazzale Aldo Moro 5, 00185, Rom, Italy | **Email** urp@uniroma1.it | **Website** https://web.uniroma1.it/dip_diet

13/07/2021 – 13/07/2022 Mestre, Italy

RESARCHER UNIVERSITY OF VENICE - CA' FOSCARI

1. Develop and apply statistical models and techniques for the forecasting of weather conditions using Ensemble Modeling Outputs Statistics (EMOS).
2. Use statistical methods such as linear and nonlinear regression, time series analysis, and clustering to identify patterns and trends in weather data.

3. Analyze weather data from various sources, including satellite imagery and radar, to assess potential weather events and forecasts.
4. Evaluate existing EMOS models for accuracy and efficiency and recommend modifications for improved performance.
5. Develop new strategies for forecasting weather conditions using EMOS.
6. Utilize computer software for statistical analysis and graphical presentation of weather data.
7. Communicate and present weather forecasts to stakeholders and colleagues.
8. Prepare detailed reports on weather forecasting results.
9. Collaborate with other professionals to ensure accuracy and consistency of weather forecasts.

Business or Sector Professional, scientific and technical activities |

Department Department of Environmental Sciences, Informatics and Statistics | **Email** segreteria@unive.it |

Website www.unive.it

06/06/2019 – 13/06/2021 Bari, Italy

RESEARCHER ITALIAN NATIONAL RESEARCH COUNCIL (CNR)

1. Develop research plans and strategies to investigate agrohydrologic monitoring using remote sensing data.
2. Collect, process, analyze, and interpret remote sensing data and other geospatial data to identify patterns related to agrohydrologic monitoring.
3. Design, implement, and test software applications related to remote sensing and geospatial data for agrohydrologic monitoring.
4. Design, develop, and modify algorithms for agrohydrologic monitoring using remote sensing data.
5. Collaborate with multidisciplinary teams to develop models for agrohydrologic monitoring.
6. Prepare reports, presentations, and other documents summarizing research findings and results.
7. Publish research results in peer-reviewed journals and present findings at conferences and other events.
8. Stay current with advancements in remote sensing technology and geospatial data analysis methods.
9. Maintain accurate records of research activities.

Business or Sector Professional, scientific and technical activities |

Department Institute for Electromagnetic Sensing of the Environment (IREA) | **Address** Via Amendola, 122/D, 70126, Bari, Italy |

Email responsabile_bari@irea.cnr.it | **Website** http://www.irea.cnr.it/

05/04/2017 – 30/08/2018 Gainesville, FLORIDA, United States

RESEARCHER / VISITING-SCHOLAR UNIVERSITY OF FLORIDA (UFL)

1. Develop coupled hydrologic and crop models for agrohydrologic research.
2. Utilize GIS and remote sensing techniques to develop and monitor agro-ecosystems.
3. Conduct research to assess the impact of land use and climate change on agricultural productivity.
4. Design and implement agrohydrologic models for watershed management.
5. Analyze and interpret the hydrological processes to identify risk and mitigation strategies.
6. Use of crop models for agrohydrologic simulation.
7. Implement agrohydrological monitoring systems to assess soil and water resources.
8. Design and analyze agrohydrological experiments to assess the impact of land use, climate change, and other factors on agriculture.
9. Conduct data analysis to identify trends and develop predictive models.
10. Collaborate with other researchers and stakeholders to evaluate current agrohydrologic research, develop new approaches and strategies, and provide recommendations for policy makers.
11. Stay up-to-date with the latest agrohydrologic research and technologies.

Business or Sector Professional, scientific and technical activities | **Department** Agricultural and Biological Engineering (ABE) |

Address 1741 Museum Road, 32603, Gainesville, FLORIDA, United States | **Email** abeinfo@ufl.edu |

Website http://www.abe.ufl.edu

31/10/2015 – 30/10/2018 Bari, Italy

RESEARCHER POLYTECHNIC UNIVERSITY OF BARI (POLIBA)

1. Develop and refine hydrologic and crop models coupling technologies and techniques to assess the impact of climate change on water resources.
2. Collect and analyze data from various sources to create models of hydrologic and crop systems.
3. Develop and maintain computer programs to simulate the water movement and crop production.
4. Monitor and analyze the performance of hydrologic and crop models in terms of accuracy and precision.
5. Identify research gaps and opportunities to improve hydrologic and crop models.
6. Prepare and present research findings at conferences and workshops.
7. Provide technical advice and guidance to stakeholders regarding hydrologic and crop models.
8. Collaborate with other research teams to further develop the models and explore new research areas.
9. Design and implement field experiments to test the accuracy of hydrologic and crop models.

10. Generate and interpret detailed hydrologic and crop model results for policy makers.

Business or Sector Professional, scientific and technical activities |

Department Department of Civil, Environmental, Building Engineering and Chemistry (DICATECh) |

Address Via Edoardo Orabona 4, 70125, Bari, Italy | **Email** dicatech.poliba@legalmail.it | **Website** http://www.dicatechpoliba.it/

30/09/2015 – 30/12/2015 Valenzano, Italy

CONSULTANT INTERNATIONAL CENTRE OF ADVANCED MEDITERRANEAN AGRONOMIC STUDIES (CIHEAM)

1. Develop an effective monitoring strategy to ensure the protection of the Mediterranean area's green territories.
2. Utilize a variety of data sources, such as satellite images, GIS, and field surveys, to identify potential environmental threats to the area.
3. Monitor changes in land use, land cover, and natural resource management activities in the area.
4. Analyze data to identify trends and potential problems.
5. Develop and implement programs to protect the area's natural resources.
6. Collaborate with government agencies, local communities, and other stakeholders to implement monitoring strategies.
7. Educate the public about the importance of preserving the Mediterranean area's green resources.
8. Prepare reports and other documents for presentation to stakeholders and decision-makers.
9. Monitor the implementation of conservation strategies and provide feedback to decision-makers.
10. Assist with the development of environmental policies and regulations to protect the area's resources.

Business or Sector Professional, scientific and technical activities |

Department Agronomic Institute of Bari - Land and Water Resources Management | **Address** Via Ceglie 9, 70010, Valenzano, Italy |

Email iamdir@iamb.it | **Website** https://www.iamb.it/

03/10/2013 – 25/10/2015 Valenzano, Italy

GRADUATED STUDENT RESEARCHER INTERNATIONAL CENTER OF ADVANCED MEDITERRANEAN AGRONOMIC STUDIES (CIHEAM)

Assess land use and land cover changes and their impacts on river stream-flow discharge using remote sensing and GIS.
Develop and implement land use and land cover change models to analyze the effects of land use and land cover on river stream-flow.
Collect and analyze data on land use and land cover changes and analyze the effects of land use and land cover changes on river stream-flow using hydrological modeling techniques.
Identify and evaluate trends in land use and land cover changes and analyze the impacts on river stream-flow.
Develop and recommend strategies to mitigate the effects of land use and land cover changes on river stream-flow.
Prepare reports, presentations and other documents on land use and land cover changes and their impacts on river stream-flow.
Monitor river stream-flow and provide data to stakeholders on changes in land use and land cover and its impacts.
Collaborate with other departments and agencies to coordinate land use and land cover changes and their impacts on river stream-flow.
Consult with stakeholders on land use and land cover changes and their impacts on river stream-flow.
Participate in research studies and activities related to land use and land cover changes and their impacts on river

Business or Sector Professional, scientific and technical activities |

Department Agronomic Institute of Bari - Land and Water Resources Management | **Address** Via Ceglie 9, 70010, Valenzano, Italy |

Email iamdir@iamb.it | **Website** https://www.iamb.it/

EDUCATION AND TRAINING

30/09/2015 – 27/01/2019 Bari, Italy

DOCTOR OF PHILOSOPHY IN RISK AND ENVIRONMENT, TERRITORIAL AND BUILDING DEVELOPMENT Polytechnics University of Bari

Address Via Amendola 126/B, Bari, Italy | **Website** http://www.poliba.it/ |

Field of study Hydrology, Agronomy, Remote Sensing, Modeling & Model Coupling | **Final grade** Cum Maxima Laude |

Level in EQF EQF level 8 | **Thesis** Advanced Computer Technologies for Integrated Agro-Hydrologic Systems Modeling

14/05/2017 – 19/05/2017 Gainesville, FLORIDA, United States

DSSAT INTERNATIONAL TRAINING PROGRAM University of Florida, University of Auburn, IFDC, DSSAT Foundation

Address McCarty Hall, 1604 McCarty Dr n°1008, Gainesville, FLORIDA, United States | **Website** https://ifas.ufl.edu |

Field of study Assessing Crop Production, Nutrient Management, Climatic Risk and Environmental Sustainability with Simulation Models

Level in EQF EQF level 7

03/10/2013 – 25/10/2015 Valenzano, Italy

MASTER OF SCIENCE International Center of Advanced Mediterranean Agronomic Studies (CIHEAM)

Address Via Ceglie 9, Valenzano, Italy | **Field of study** Land and Water Resources Management |

Final grade Cum Maxima Laude | **Level in EQF** EQF level 5 |

Thesis Continuous land use/land cover changes impacts on stream flow discharge modelisation and driving fa

30/11/2012 – 25/07/2013 Lyon, France

FIE CERTIFICATE OF INSA LYON National Institute of Applied Sciences (INSA Lyon)

Address 20 Avenue Albert Einstein, Lyon, France | **Website** https://www.insa-lyon.fr/ |

Field of study Management, Technology and Entrepreneurship | **Level in EQF** EQF level 5

31/08/2008 – 25/06/2013 Blida, Algeria

STATE ENGINEER IN HYDRAULICS Higher National Institute of Hydraulics (ENSH)

Address Route de Soumaâ, Blida, Algeria | **Website** https://www.ensh.dz | **Field of study** Hydraulics Engineering |

Level in EQF EQF level 3 | **Thesis** Design Flood Protection System for the Garden Valley, Mostaganem

LANGUAGE SKILLS

Mother tongue(s): **BERBER LANGUAGES**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ITALIAN	C2	C2	C2	C2	C2
ENGLISH	C2	C2	C2	C2	C2
FRENCH	C2	C2	C2	C2	C2
ARABIC	C2	C2	C2	C2	C2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

FIELDS

Hydrology | Hydraulics | Agronomy | Remote Sensing | GIS (Geographical Information System)

DESIGN

Dams | Irrigation Systems | Urban Water Drainage Systems | Protective Flood Systems | Drinking Water Network Systems

PROGRAMMING

MATLAB&Simulink | C++ | FORTRAN 77/90/95 | R | Julia | Python | GAMS

MODELS

DSSAT | VIC | AquaCrop-GIS | WaterGEMS | AquaCrop | DREAM | HBV | MIKE SHE | TOPMODEL | SWAT

MANAGEMENT

Resources | Time | Staff | Works

OPERATION

Organization | Functional Analysis | Negotiation | Business Planning | Problem Solving | Strategic Marketing | Decision Making

PERSONAL SKILLS

Leadership | Adaptation | Proactive | Autodidact | Communication

ADDITIONAL INFORMATION

References Available Upon Request

Publications

Gaetan, Carlo & Federica, Giummolè & Valentina, Mameli & Siad, Si Mokrane. (2022). Ensemble model output statistics for temperature forecasts in Veneto. http://hdl.handle.net/10278/5004826

Stavi, I.; Paschalidou, A.; Kyriazopoulos, A.P.; Halbac-Cotoara-Zamfir, R.; Siad, S.M.; Suska-Malawska, M.; Savic, D.; Roque de Pinho, J.; Thalheimer, L.; Williams, D.S.; Hashimshony-Yaffe, N.; van der Geest, K.; Cordovil, C.M.d.S.; Ficko, A. Multidimensional Food Security Nexus in Drylands under the Slow Onset Effects of Climate Change. *Land* **2021**, *10*, 1350. https://doi.org/10.3390/land10121350

Stavi I, Siad SM, Kyriazopoulos AP, Halbac-Cotoara-Zamfir R. Water runoff harvesting systems for restoration of degraded rangelands: A review of challenges and opportunities. J Environ Manage 2020;255. https://doi.org/10.1016/j.jenvman.2019.109823.

Siad SM. Advanced Computer Technologies for Integrated Agro-Hydrologic Systems Modeling: Coupled Crop and Hydrologic Models for Agricultural Intensification Impacts Assessment. Polytechnic University of Bari (Politecnico di Bari), 2019.

Siad SM, Iacobellis V, Zdruli P, Gioia A, Stavi I, Hoogenboom G. A review of coupled hydrologic and crop growth models. Agric Water Manag 2019;224. https://doi.org/10.1016/j.agwat.2019.105746.

Siad SM, Gioia A, Hoogenboom G, Iacobellis V, Novelli A, Tarantino E, et al. Durum wheat cover analysis in the scope of policy and market price changes: A case study in Southern Italy. Agric 2017;7:12. https://doi.org/10.3390/agriculture7020012.

Siad SM. Continuous land use/land cover changes impacts on stream flow discharge modelisation and driving factors investigation. CIHEAM-IAMB, 2015. https://doi.org/http://sebina.iamb.it/opac/resource/continuous-land-useland-cover-changes-impacts-on-stream-flow-discharge-modeling-and-driving-factors-/CIH0023031?locale=eng.