

Riyaz Uddien Shaik

Experience

Research Fellow

Feb'19 - Present

EOSIAL LAB, University of Rome 'La Sapienza'

Rome, Italy

Involved in S2IGI project (an Integrated system for forest fires management)

- Developing an algorithm involving machine learning to automatically detect fuel types using PRISMA hyperspectral imagery (in collaboration with e-geos).
- Developed wildfire fuel map using hyperspectral imagery (PRISMA).
- Carried out wildfire vulnerability analysis considering various parameters using Satellite and GIS data.
- Developed Graphic User Interface (GUI) on Matlab for wildfires analysis.
- Skills acquired on Matlab (ML / DL), R, Python, Octave, ArcGIS, SNAP & ENVI.

Education

University of Rome 'La Sapienza'

Rome, Italy

PhD in Energy & Environment (Satellite Remote Sensing)

Nov'18 - Oct'21

Thesis Title: Hyperspectral Imagery for Management and Prevention of Wildfires

University of Rome 'La Sapienza'

Rome, Italy

Master (II-level) in Satellite Systems & Services

Dec'17 - Nov'18

Grade - 110/110

Master (II-level) Thesis

Title: Modeling of Propellant Gauging System for 'PRISMA' Satellite

Organization: *OHB-Italia S.p.A, Italy.*

Summary: Developed the propellant gauging algorithm based on bookkeeping, PVT and thermal gauging methods to be used at ground station which predicts the residual propellant in the satellite using telemetry data for the 'PRISMA' which is an earth observation satellite of Italian Space Agency.

Internships

1. 'Modeling and Analysis of Aerodynamic Structure for Rail Coach' at *Integral Coach Factory, Southern Railways, Chennai, India.* (Bachelor's Project)
2. 'Design of Resin Lining Machine for Propellant Hardware' at *Indian Space Research Organization, Sriharikota, India.* (Bachelor's Summer Internship)
3. 'Design and Analysis of Electron Beam Welding Fixture for Air Intake Assembly' at *Defense Research & Development Laboratory, Hyderabad, India.* (Master's Summer Internship)
4. 'Electroless Nickel Plating on Iron Powder' at *International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad, India.* (Mini-Project)

Computational skills

Image Processing: Matlab (Image Processing), ArcMap SNAP & ENVI.

Programming: Python, Matlab & GNU Octave.

Modelling: AutoCAD, PTC Creo, Solid Works & ChemSketch.

Analysis: ANSYS & Match (Phase Analysis).

Others: LaTeX, Origin & Integrated Manufacturing Information System (IMIS).

Proceedings

[1] **Riyaz Uddien Shaik**, Giovanni Laneve, Lorenzo Fusilli. '*New Approach of Sample Generation and Classification for Wildfire Fuel Mapping on Hyperspectral (PRISMA) Image*'. July 2021, IGARSS 2021, IEEE (Accepted). **IF: 1.30**

[2] **Riyaz Uddien Shaik**, Valerio Pampanoni, Giovanni Laneve. '*Support Wildfire Management in Mediterranean Territories Using Multi-Source Satellite Data*'. October 2019, 12th EARSeL eProceedings. **IF: 1.00**

[3] M Jagadeeswara Rao, **Riyaz Uddien Shaik**, K Buschaiah. '*Electrical Discharge Machining: A Comparative Surface Integrity Study for Incoloy-800*'. Jan 2020, Materials Today: Proceedings 2020, Volume 22, Elsevier. **IF: 1.30**

Publications

[1] **Riyaz Uddien Shaik**, Giovanni Laneve, Valerio Pampanoni. '*The Daily Fire Hazard Index: A Fire Danger Rating Method for Mediterranean Areas*'. July 2020, Remote Sensing 12(15) : 2356. **IF: 4.50**

[2] Meysam Majidi Nezhad, **Riyaz Uddien Shaik**, Azim Heydari, Armin Razmjoo, Niyazi Arslan, Davide Astiaso Garcia. '*A SWOT Analysis for Offshore Wind Energy Assessment Using Remote-Sensing Potential*'. September 2020, Applied Sciences 10:6398. **IF: 2.47**

[3] Srikanth Vuppala, **Riyaz Uddien Shaik**, Marco Stoller. '*Multi-Response Optimization of Coagulation and Flocculation of Olive Mill Wastewater: Statistical Approach*'. March 2021, Applied Sciences 11,2344. **IF: 2.47**

Peer Reviewer: Remote Sensing, Applied Sciences, & Energies.