

Title of the topic	
Host	isardSAT (https://www.isardsat.space/en/home/)
Responsibles	Josep Maria Villar Mir (UdL) and Maria Jose Escorihuela (isardSAT)
Financial Framework	MICINN Industrial Doctorate Co-funding supported by H2020 ACCWA project (2019-2023) : «Accounting for Climate Change in Water and Agriculture management»
Profile of applicant	<p>Engineering or Physics Degree, optional Master degree in Remote Sensing. The candidate should be able to enrol in PhD programme by September/October 2020.</p> <p>Applicants must be able to pursue data-oriented computational research as well as experimental approaches and fieldwork to validate model predictions.</p> <p>Good numerical skills and literacy in programming is an asset.</p> <p>A good standard of written and spoken English is required.</p> <p>The position is linked to the MICINN grant and is limited to 3 years.</p>
Short description of the topic: context, applied methodology, expected results.	<p>This PhD deals with the advancement of Earth Observation (EO) capabilities for the development of irrigation information making use of a wide range of methodological options, multi-mission, including the use of models with different levels of complexity and physical concepts.</p> <p>It follows from recent scientific developments participated by isardSAT that have developed and demonstrated on the one hand the possibility to map and quantify irrigation amounts and on the other hand the impact that the introduction of irrigation has on land surface models and more specifically in Mediterranean region.</p> <p>In this PhD program, we propose to use readily available Soil Moisture and Evapotranspiration EO data to map irrigation and irrigation types across the Ebro Basin. Different modeling approaches and Artificial Intelligence will be used for that purpose. The PhD will be developed in collaboration with University of Lleida and IRTA.</p> <p>The PhD candidate will be mainly based at isardSAT (Barcelona), will participate in field campaigns over irrigated areas in Spain and will have secondment opportunities (up to 12 months) to the partner organizations of ACCWA. A top-up allowance of 2000€ per month will be paid to the PhD student during the mobility periods.</p>
Application	<p>To apply send an application package containing:</p> <ul style="list-style-type: none"> • Cover letter • Academic CV • Name and contact of three referees who can comment on the applicant capacities and abilities (please inform them that, if you are shortlisted, we might contact them asking for a reference) <p>To: info@isardSAT.cat</p> <p>Deadline for receiving the documents is 31 December 2019</p>