

## Expression of Interest-UPM Supervisor

### *Marie Skłodowska Curie Action–Postdoctoral Fellowship 2026 (MSCA-PF-2026)*

<b>Supervisor Name</b>	Monsur Islam
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<b>Department /Institute / Centre Name/Location</b>	Mechanical Engineering, ETSI Industriales.
<b>Research Area</b>	Information Science and Engineering (ENG)
<b>Research team/group</b>	The Product Development Laboratory at UPM specializes in the design and fabrication of advanced biomaterials, with strong expertise in additive micromanufacturing and carbon-based architected materials for healthcare applications. The group has participated in several national and international projects, particularly on advanced 3D printing and engineered living materials. The PI is a former Marie Curie fellow with a strong international trajectory. The lab provides state-of-the-art multimaterial 3D printing, microstructural analysis, and an interdisciplinary, well-connected environment ideal for MSCA postdoctoral researchers.
<b>Keywords</b>	3D printing, Biomaterials, Carbon materials, Bio-based materials.
<b>Research Focus</b>	<b>Design and additive manufacturing of fully biobased and bioactive resins for regenerative applications</b> This research line explores the design and additive micromanufacturing of fully biobased and intrinsically bioactive resins for next-generation tissue engineering. Current bio-resins rely on petroleum-based precursors or lack true bioactivity, limiting their performance and sustainability. We aim to develop novel photopolymerizable biopolymers and architected biomaterials that combine printability, mechanical integrity, and biological function. The approach is open and adaptable, allowing candidates to integrate their expertise in polymer chemistry, biomaterials, biofabrication, or regenerative medicine. Projects can span material synthesis, resin formulation, 3D printing, microstructural design, or cell-material interactions, aligning with the lab’s strong background in advanced biomaterials and engineered living materials.
<b>Applications: documents to be submitted and deadlines</b>	Interested researchers should send to the supervisor a full CV, a complete list of publications, and a brief justification of the relevance and scientific importance of their top five papers. Applications should be submitted by the end of April 2026 to ensure sufficient time for selection.