

Expression of Interest-UPM Supervisor

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

Supervisor Name	Miguel Jiménez Carrizosa
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Centre Name/Location	Center for Industrial Electronics and Multimodal Systems (CEIMM)
Research Area	Information Science and Engineering (ENG)
Research team/group	Center for Industrial Electronics and Multimodal Systems (CEIMM) has around 90 researchers, whose work combines basic and applied research). with the creation of innovative technological solutions for industry and society. Among its many lines of research, power electronics stand out (with a very broad focus both in mW powers up to kW and in applications: biomedicine, IT, industrial, aerospace and aeronautics and renewable energies), digital embedded systems and RF power amplifiers. CEIMM has a strong research activity both in competitive projects (European and National) and contracts with Industry worldwide (Europe, USA, China and Australia). CEIMM has a strong link with industry as it is demonstrated through the direct contracts with companies in Europe (Alcatel, Indra, Siemens, Philips Hearing Implants, Crisa, Casa y Sener), USA (Agere Systems, Intel, Enpirion, Ansoft and General Electric) and Australia (Cochlear) and China (SICS, HUAWEI). https://www.cei.upm.es/
Keywords	AIMD, EMC, bioelectronics
Research Focus	Electromagnetic compliance for active implantable medical devices EMC compliance for AIMD will firstly tested via software under nominal and non-nominal operating conditions. Once these simulations will be analysed, the EMC will be analysed based on standards (IEC 60601-1- 2, ISO 14708-1, ISO 14708-3 and ISO 14117) In this way, the mechanisms of electromagnetic propagation will be studied: conduction, both DM and, CM), reactive coupling (inductive or reactive) as well as radiation. The complete set of 60601 standards are: IEC/EN 60601-1 Medical electrical equipment Part 1: General requirements for basic safety and essential performance., Part 1-2: General requirements for basic safety and essential performance - Collateral Standard: Electromagnetic disturbances - Requirements and tests. <i>Part 1-6: General requirements for basic safety and essential performance - Collateral standard: Usability.</i> <i>1-9: General requirements for basic safety and essential performance - Collateral Standard: Requirements for environmentally conscious design</i>
Applications: documents to be submitted and deadlines	Please send the following documents to the supervisor: CV, Letter of motivation and letter of references. Deadline: 30th April 2026