

PROFILE	Researcher working as a Device Engineer with a good background in the field of custom silicon detectors
N. POSTS	N. 1 fixed term contract (March 2021 – December 2023)
LOCATION	Povo (Trento) - Italy
VALID TILL	March 18, 2021
DESCRIPTION	<p>The Device Engineer will work on the development and characterization of next generation low-level light sensors, such as single photon avalanche diodes (SPADs) and Silicon Photomultipliers (SiPMs), and their integration with TSV and BSI technologies.</p> <p>The researcher's tasks will be:</p> <ul style="list-style-type: none"> • to understand and improve device properties through TCAD simulations, process tuning and detector design; • to conceive new technological solutions, new process flows and integration schemes, in particular related to TSVs and BSI devices; • to carry out in depth, advanced functional characterization of SiPMs, including characterization of the detectors in a setup as close as possible to the final experiment / industrial application; • to manage interactions and relations with scientific experiments and / or industrial partners, to better understand the specifications and tune the SiPM characteristics accordingly. <p>The ideal candidate will have a physics or electronic engineering background. Previous experience in big science experiments, knowledge of semiconductor device physics, circuit electronics or electro-optical characterization techniques are preferred skills.</p> <p>Requirements necessary for participation:</p> <ul style="list-style-type: none"> • Master degree in Physics, Electronics or Material Science; • Enthusiastic attitude to research activity; • Good scientific background and ability to write scientific papers; • Good knowledge of English (oral and written); • Strong teamwork attitude; <p>Conditions:</p> <p>Working hours: full time. Gross annual salary: from about € 34.500 to € 39.500, depending on the profile of the candidate</p>
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