

**AVA RESEARCH FELLOW CIVIDEC INSTRUMENTATION GMBH
BEAM DIAGNOSTICS AND PARTICLE DETECTION: A NOVEL DIAMOND-BASED DETECTOR FOR BEAM CHARACTERISATION**

DURATION: 13 MONTHS
STARTING DATE: APRIL 2019
LOCATION: VIENNA, AUSTRIA
COMPANY: CIVIDEC INSTRUMENTATION GMBH IN COOPERATION WITH
VIENNA UNIVERSITY OF TECHNOLOGY,
THE FACULTY OF ELECTRICAL ENGINEERING & INFORMATION TECHNOLOGY
AND THE FACULTY OF PHYSICS
ACADEMIC SUPERVISION: PROF. ERICH GRIESMAYER
SEONDMENTS AT: CERN AND GSI



THIS POSITION IS ANNOUNCED IN THE FRAMEWORK OF THE EU RESEARCH PROGRAM H2020 WITHIN THE AVA PROJECT: www.ava-project.eu
IN THE COURSE OF THE PROGRAM THE FELLOWS WILL BE ABLE TO ATTEND INTERNATIONAL MEETINGS AND CONFERENCES AND WILL BE ENCOURAGED
TO PUBLISH THEIR RESEARCH RESULTS. ADVANCED TRAININGS WILL BE ENCOURAGED AND SUPPORTED.

DESCRIPTION OF THE POSITION:

IN COLLABORATION WITH OUR CURRENT AVA PHD FELLOW, YOU WILL BE INVESTIGATING THE APPLICATION OF A DIAMOND MEMBRANE DETECTOR FOR ANTIMATTER RESEARCH. YOU WILL BE ANALYSING EXPERIMENTAL DATA WHICH WAS TAKEN DURING BEAM TESTS WITH A PROTOTYPE DETECTOR IN 2017-2018 AT THE AEGIS EXPERIMENT AT CERN. YOU WILL BE STUDYING THE INTERACTION MECHANISMS OF ANTIMATTER WITH MATTER, THE DESIGN AN ULTRA-THIN, VACUUM COMPATIBLE DIAMOND MEMBRANE DETECTOR AND THE RELATED FRONT-END ELECTRONICS FOR ANTIMATTER RESEARCH. YOU WILL GAIN HANDS-ON EXPERIENCE IN DETECTOR DESIGN, READ-OUT ELECTRONICS, DIGITAL DATA PROCESSING AND DATA ANALYSIS.

YOUR PROFILE:

WE ARE LOOKING FOR AN EARLY CAREER RESEARCHER WITH A MASTER DEGREE IN PHYSICS OR ELECTRICAL ENGINEERING. THE H2020 MOBILITY RULES REQUIRE THAT YOU HAVE NOT SPENT MORE THAN 12 MONTHS IN AUSTRIA IN THE PERIOD APRIL 2016 – APRIL 2019.

ABOUT CIVIDEC:

CIVIDEC INSTRUMENTATION GMBH WAS FOUNDED IN 2009 BY ERICH GRIESMAYER. WE ARE AN R&D COMPANY WITH A BIG INTERNATIONAL RESEARCH NETWORK AND INTERNATIONAL CUSTOMERS, INCLUDING CERN. CIVIDEC IS PRODUCING TURN-KEY SOLUTIONS FOR NEUTRON, X-RAY AND CHARGED PARTICLE BEAM DIAGNOSTICS BASED ON CVD DIAMOND. THE PRODUCTION OF THE PRODUCTS TAKES PLACE IN THE HEADQUARTER IN VIENNA. IN ADDITION TO SUPPORTING SEVERAL PHDS, CIVIDEC IS INVESTING A SUBSTANTIAL PART OF ITS ANNUAL TURNOVER INTO ITS IN-HOUSE RESEARCH ACTIVITIES.

CONTACT: PLEASE SEND YOUR APPLICATION AND CV TO CHRISTINA WEISS UNTIL 10.3.2019: CHRISTINA.WEISS@CIVIDEC.AT