



KONKURS O STAŻ „Rozwój kadr sektora kosmicznego”

Nazwa podmiotu:	QWED Sp. z o.o.
Rodzaj/wielkość przedsiębiorstwa (małe/średnie/duże):	MŚP - małe przedsiębiorstwo
Adres podmiotu:	ul. Krzywickiego 12/1, 02-078 Warszawa
Osoba do kontaktu w sprawie KONKURSU O STAŻ:	dr inż. Marzena Olszewska-Placha m.olszewska@qwed.eu
Główne obszary działalności rynkowej podmiotu:	<p>QWED is a high-tech SME of 15+ R&D engineers, successfully competing on the international markets with corporations of 10 000+, in the areas of computer multiphysics simulations and material measurements at GHz frequencies. QWED flagship products are:</p> <ul style="list-style-type: none">- QuickWave electromagnetic simulation software, with supporting modules for thermal phenomena, operated through different Graphical User Interfaces, from the industrial standard Autodesk Inventor Software to FreeCAD-based QW-Modeller,- microwave dielectric resonators including SPDRs defined by the European Standard: IEC 61189-2-721:2015. <p>QuickWave software has been used in space research since 1997 (by e.g. NASA-related laboratories of NRAO and JPL; in e.g. ALMA project). It matches and often outperforms the simulation packages by ANSYS, CST, and COMSOL.</p> <p>QWED resonators are advocated by KEYSIGHT as a valued extension to its Vector Network Analysers but also used in conjunction with VNAs of other brands.</p>
Data wypełnienia formularza:	4 maja 2020 r.
Wymagania od kandydatów (np. ukończony kierunek studiów, specjalizacja, posiadane certyfikaty, dotychczasowe doświadczenie zawodowe, znajomość języków obcych, itp.):	<p>We seek a passionate early stage researcher willing to join in our ambitious developments in the areas of modelling-based material measurements and / or multiphysics computer simulations who demonstrates:</p> <ul style="list-style-type: none">- at least a B.Sc., Eng. or equivalent degree, preferred but non-exclusively in computational physics; electrical-electronic-mechanical-chemical engineering; applied physics-mathematics- physical chemistry,- good knowledge of written & spoken English (proficiency will be an asset),- programming experience (C++, Python, MATLAB, other),- reporting and presentation skills,- team work experience (leadership experience will be an

	asset), - scientific curiosity and/or engineering conscientiousness.
Ogólny opis stanowiska pracy:	<p>Stanowisko pracy: Inżynier nowych technik symulacyjnych i pomiarowych.</p> <p>The work will concern space technologies and applications in related industry sectors (defense, automotive, energy& batteries). The specific technical tasks will be selected from the two groups below, according to the candidate's profile and interests. No preference will be given to either task or either group of tasks, and a mixture of tasks from the two groups is also possible, provided that at least four tasks are agreed:</p> <p>1. Characterisation of semiconductors (organic and inorganic) and energy materials:</p> <ul style="list-style-type: none"> - measurements of material samples in QWED test-fixtures, - development of data and image processing for enhanced material characterisation, - modelling-based design and calibration of new test-fixtures, - automation of measurements (2D scanning, environmental testing), - documentation and standardisation of material measurements. <p>2. Applications and development of QuickWave simulation software:</p> <ul style="list-style-type: none"> - optimising antennas and electronic components (RF, GHz, THz) for satellites and ground sector, - development of FDTD equations for additively-manufactured (3D-printed) materials, - development of FDTD equations for electrochemical processes in energy storage components, - documentation and standardisation of computer simulations. <p>On top of the technical tasks, the candidate will prepare scientific publications and actively participate to technical meetings. The results of the 6 months apprenticeship should include at least one <i>White Paper</i> and one submission to an international conference (e.g. IEEE, ESA, ACerS, EMMC).</p>