



2014-IPR-F-000-3013

**Modelling the electrical performance of  
organic photovoltaic devices**

<p><b>Position for:</b> Trainee TYPE I and/or II</p>	<p><b><u>Short description of activity:</u></b> The JRC's European Solar Test Installation (ESTI) is a European reference lab for performance measurement of innovative photovoltaic technologies. Organic photovoltaic (OPVs) are a promising technology with the potential to provide a much cheaper source of electricity for devices and in buildings. They are complex electric systems and one approach to aid understanding of their electrical properties is to model their performance using analogous electrical components. Observing how the model-fit parameters change with environmental stressors can support the development realistic physical explanations of behaviour. The trainee will develop knowledge and skills on the use of computing scripts (Matlab or similar) for OPV cell modelling and analysis based on available experimental data.</p> <p><b><u>Qualifications:</u></b> The candidate should be a recent graduate or an undergraduate in the last 1-2 years of university education in the fields of science or engineering. Good knowledge of one or more of the following areas is a pre-requisite: principles of photovoltaic solar energy, electrical performance measurements, programming skills and statistics.</p> <p>English language (B2 level).</p> <p><b><u>For general eligibility requirements, please read the rules- see below.</u></b></p>
<p><b>Institute Unit</b></p>	<p>Institute for Energy and Transport Renewable Energy Unit 749 PVRES</p> <p>Further information: <a href="http://re.jrc.ec.europa.eu/esti">http://re.jrc.ec.europa.eu/esti</a></p>
<p><b>Indicative duration</b></p>	<p>5 months</p>
<p><b>Preferred starting date</b></p>	<p>01/09/2014</p>

<b>JRC Site</b>	Ispra
<b>Country</b>	Italy
<b>Rules, general eligibility requirements</b>	Trainees: <a href="http://ec.europa.eu/dgs/jrc/index.cfm?id=5860">http://ec.europa.eu/dgs/jrc/index.cfm?id=5860</a>