



## RadioNet support for engineering events Application form

EVENT INFORMATION	
EVENT TITLE	Detection and Measurement of RFI in Radio Astronomy
EVENT PLACE	Yebes Observatory (Guadalajara, SPAIN)
EVENT ORGANISER	Dr. José A. López-Pérez (UAH-IGN)
EVENT DATE	June 8-9, 2017
NO. OF PARTICIPANTS	20
TOTAL EVENT COST	2.000 €
OTHER SOURCES OF FUNDING	IGN-Yebes funds (500 €)
<b>REQUEST</b> (max. 2,5 pages)	
Requested contribution [EURO]	1.500 €
Use of the RadioNet contribution	<p><i>Financial assistance for speakers and attendees (1.000€), lunch and coffee break costs (400€), abstract worksheet printing costs (100 €).</i></p> <p><i>Financial assistance will be provided to invited speakers, firstly, and students, secondly.</i></p> <p><i>This workshop will comply with the ethical principles of the European Code of Conduct for Research Integrity.</i></p>
Topic	<p><i>Detection and measurement of radio frequency interference signals (RFI) in radio astronomy.</i></p> <p><i>RFI signals impede the proper detection of cosmic radio waves and can even blind high sensitivity radio astronomy receivers, making them useless. Therefore, it is very important for the radio astronomy community to detect and quantify them, in order to mitigate their effects in the observations and to claim for protection to the national spectrum management authorities.</i></p> <p><i>This event is closely related with H2020 Radionet4 project, because its work package named BRAND-EVN is going to build a wide-band (1.5-15.5 GHz) prototype receiver for radio astronomy, whose performance will be distorted by RFI signals.</i></p> <p><i>One task in the BRAND-EVN work package is an RFI survey in different radio observatories where this prototype receiver could be installed.</i></p>
Cross-disciplinary	<p><i>The topics of the workshop are common to other disciplines like microwave remote sensing, ionospheric studies or geodetic VLBI. As a result, the workshop is a good opportunity to bring together the methods of other disciplines in the detection of RFI. In addition, it will provide the basis for less experienced scientists and engineers facing with these issues.</i></p> <p><i>The final part of the workshop will be dedicated to a training course on the detection and measurement of RFI signals with the instrumentation available at</i></p>

	<i>Yebes observatory.</i>
<b>Impact</b>	<p><i>The workshop will join the efforts of scientists and engineers from various radio observatories in the detection, measurement and mitigation of RFI.</i></p> <p><i>In addition, technological companies will be invited to the workshop in order to identify possible products to carry out RFI measurements, according to the requirements of the radio astronomy community.</i></p> <p><i>The attendees of the training course will be able to carry out RFI surveys at their observatories, using either their own instrumentation or borrowing the equipment available from Yebes.</i></p>
<b>Ethics</b>	<i>This workshop will comply with the ethical principles of the European Code of Conduct for Research Integrity.</i>