



RadioNet support for engineering events Application form

EVENT INFORMATION	
EVENT TITLE	6 th International VLBI Technology Workshop
EVENT PLACE	Istituto di Radioastronomia – INAF- Via P. Gobetti, 101 – 40129 Bologna, Italy
EVENT ORGANISER	Dr. Mauro Nanni (nanni@ira.inaf.it)
EVENT DATE	09 – 11 October 2017
NO. OF PARTICIPANTS	80
TOTAL EVENT COST	13,000 Euro
OTHER SOURCES OF FUNDING	INAF Central Administration. Funding level requested: 5,000 Euro
REQUEST (max. 2,5 pages)	
Requested contribution [EURO]	3,000 Euro
Use of the RadioNet contribution	<p>We are aware that females are particularly under-represented in the physical sciences and engineering. We would like to encourage female participation to the workshop through a financial support. We would also like to encourage the participation of early stage scientists and engineers to equip them with the essential skills to take full advantage of the present and future radio astronomical infrastructures, including the relevant instrumentation, observing techniques and technologies.</p> <p>About 2/3 of the requested financial contribution (2,000 Euro) will be addressed to support travel and accommodation costs of female and young scientists and/or engineers. The Local Organizing Members under the supervision of the Scientific Organizing Committee Chair will make the selection of the proposals of financial support.</p> <p>The remaining 1/3 of the requested contribution (1,000 Euro) will be use to cover part of the costs of the planned contract to an agency in outsource to do the secretary work connected to the organization of the workshop.</p> <p><i>Note.</i> It is not easily predictable how many requests of a financial support for participating to the workshop will be submitted to the LOC. In consequence, the partition 2/3 for travel support and 1/3 as contribution to cover the cost of the contract in outsource should be considered flexible.</p>
Topic <input type="checkbox"/>	<p>Rapid advances in technologies relevant to VLBI are foreseen in many fields: data recording, transmission, correlation and data analysis. They imply to reconsider how to make use of the VLBI observing technique to attain prominent scientific progresses in both astronomy and geodesy. The combination of the IVS and EVN facilities, and potentially new applications, the overview of emerging facilities at both low and high frequencies, the current and near-term progresses on VLBI technology, a forward look to opportunity and views of VLBI technology in the years to come, are among the aims of the workshop. Suggested areas of interest:</p> <ol style="list-style-type: none">1. Direct-RF-sampling2. Time and Frequency Distribution: Fiber optic distribution to remote sites3. Developments on software including fringe-fitting

	<ol style="list-style-type: none"> 4. Combination of linear and circular polarization in VLBI observations 5. Tbps-scale data recording/transmission/correlation 6. Potential VLBI facilities at low frequencies, and at mm and sub-mm wavelengths <p>The International VLBI Technology Workshop is considered one of the most important meetings among members of the technology staff of EVN and IVS institutes and of the East-Asian VLBI infrastructures. The present one will be the sixth. The previous event (2016) was held in Haystack with a large participation of members of the VLBI community world-wide. The aim is to increase the interaction between the existing VLBI observing facilities and foreseen any possible integration with them of the upcoming new technological advanced instrumentation.</p> <p>The 6th IVTW will be held in the Institute of Radio Astronomy in Bologna. IRA is one of the funding members of the EVN and since the 80th contributes regularly to the IVS observing programmes. IRA has a long standing tradition in both scientific and technology activities connected to VLBI. IRA runs two 32-m telescopes able to observe in the frequency range 327 MHz – 43 GHz. IRA technical staff was and is involved in designing receivers, digital back-ends, recording/transmission/correlation of VLBI data.</p> <p>The 6th IVTW nicely fits in the contest of the RadioNet activities. It is in particular relevant in the context of the Transnational Access activities of RadioNet being the EVN one of the main facilities opened to the community.</p> <p>The 6th IVTW, promoting the exchange of experiences and an open discussion on future upgrading and developments of the data acquisition and data analysis is clearly in line with the aims of RadioNet.</p>
Cross-disciplinary	<p>The 6th IVTW is an advanced workshops aimed at sharing technical knowledge across disciplines including hardware and software engineering with the participation of both scientific and technical staff. It covers many technical developments and improvements in capabilities on other radio astronomy facilities. It includes staff members who have worked on some of the most complex observational programs but who are also directly involved in supporting inexperienced users. Open discussions are foreseen about the possible implementation of the most recent developments in most of the RadioNet TNA facilities. Engineers and scientists of the less experienced institutes may gain a lot participating to the 6th IVTW, an event where they can easily face the state-of-the-art developments in interferometric observations and data analysis. The workshop is also specifically designed to bring the work and results of developments within the RadioNet institutes and facilities to the attention of the broader engineering community.</p>
Impact	<p>Among the objectives of the 6th IVTW there will be the exchange of ideas and new directions, in order to attract the interest of researchers and industrial engineers in related fields to collaborate in the development of radio astronomy as well as industry applications with the aim to transfer knowledge in both directions.</p> <p>The 6th IVTW is a cross-disciplinary events aiming to feed the collaboration between radio astronomers and scientists working in other bands of the electromagnetic spectrum. This will disseminate the knowledge acquired in our field to the broader astronomical community and at the same time will broaden the scientific horizon of radio astronomers.</p>
Ethics <input type="checkbox"/>	<p>The Local Organizing Committee supervised by the SOC Chair will take care of addressing the ethnic issues following recommendations and policy established by RadioNet.</p> <p>A call for the request of financial support will be announced in due time. A short CV and a reference letter by a senior staff member of the membership organization of the candidate will be required.</p>