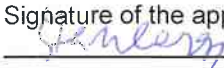




## RadioNet support for Short Term Missions (staff exchange)

### Application form

STM INFORMATION	
APPLICANT'S NAME	JANIS STEINBERGS
APPLICANT'S AFFILIATION	<i>Ventspils International Radio astronomy Center (VIRAC)</i>
HOST INSTITUTE	<i>Joint Institute for VLBI ERIC</i> <i>Contact person: Aard Keimpema, Mark Kettenis</i> <i>Email: <a href="mailto:keimpema@jive.eu">keimpema@jive.eu</a>, <a href="mailto:kettenis@jive.eu">kettenis@jive.eu</a></i>
DATE OF THE STM	20.08.2018 – 01.09.2018
TOTAL COST OF STM	900 EURO
OTHER SOURCES OF FUNDING	<i>Please specify the other sources of funding, especially from EC.</i>
<b>Request</b> (max. 2,5 pages without signature part)	
Topic	<i>Learning how to use JIVE SFXC Correlator, including calibration, fringe fitting for SFXC, and using SFXC with VDIF data format.</i>
Proposed work	<i>It is proposed that applicant will get familiar with prepare data for correlation with SFXC.</i> <i>Learn how to use SFXC in real time.</i> <i>Learn to customize correlation parameters for specific observations, including VEX file preparing, for observation with different number of channels and different BBC settings.</i> <i>Understand calibration and fringe fitting process for SFXC.</i> <i>Understand analyze of maser observation data in CASA, AIPS.</i> <i>Preparing for YERAC conference.</i>
Cross-disciplinary	<i>As VIRAC technical workers have relatively small experience in full experiment setup for interferometric observation and preparing data for correlation and after correlation creating scientific work.</i> <i>This work is important for further scientific work related to galactic maser interferometric observations, in this observation is planned to exact coordinates of new maser sources and matching the maser sources with IR sources from GAIA catalogue. Some large-scale structures in maser sources also could be considered and measured. Participation of one or two additional European radio telescopes is very welcome and will be considered in the future, which enhance this local interferometric network with mapping ability.</i> <i>This work is closely related with work of engineers and scientists</i>
Impact	<i>Expanded practical experience and field of view of VIRAC staff knowledge will positively impact astronomical data processing including pre correlation preparation, post correlation data analyze.</i> <i>It also will be necessary for The ERDF project "Physical and chemical processes in the interstellar medium, in sub activity molecular maser observation.</i>  <i>It will help VIRAC in to create proposal for EVN observation.</i>

Curriculum Vitae	<p>First name, last name: Janis Steinbergs</p> <p>Birth date: July 25, 1990</p> <p>Education:</p> <p>21/06/2018 Bachelor degree in Computer Science</p> <p>Ventspils University of Applied Sciences, Ventspils (Latvia)</p> <p>Current employment:</p> <p>Astronomy technician at Ventspils International Radio astronomy Center of Ventspils University of Applied Sciences</p> <p>Scientific publications:</p> <p>J. Steinbergs, F.Kamisevs, K.Skirmante, "Automated Correlation System for radio astronomical data processing" is accepted by the VIRAC, journal "Baltic Space Review 2018".</p> <p>Projects:</p> <p>"Training the next generation entrepreneurs with hands-on methods in SpaceTEM Interreg EST-LAT program", 2017.</p> <p>"Feasibility study on Earth observation satellites monitoring and orbital elements determination using VIRAC and VUC large-scale infrastructure", 2017.</p> <p>The ERDF project "Physical and chemical processes in the interstellar medium", No <u>1.1.1.16/A/213</u>; 2017-2020.</p> <p>Conferences:</p> <p>Ivar Shmeld, Vladislavs Bezrukovs, Jānis Šteinbergs, Artis Aberfelds, Marcis Blediers, Artūrs Orbidāns, Karina Šķirmante, Marcin Gawroński, Roman Feiler,</p> <p>First galactic maser interferometric observations in Irbene - Torun baseline ,</p> <p>European Week of Astronomy, 2018.</p> <p>Jānis Šteinbergs, Fēlikss Kamiševs, Karina Šķirmante, Arturs Orbidāns,</p> <p>The first step of Development and Deployment of Automatic e-VLBI and Data Correlation in VIRAC,</p> <p>European Planetary Science Congress 2017.</p> <p>Bachelor paper:</p> <p>Providing small baseline interferometric observations for the observations of the maser lines using the VSRC radio telescopes and processing their data, 2018.</p>
<p><b>Privacy Policy:</b> With signing this template and applying for RadioNet funding, I accept the <u>Privacy Policy of RadioNet</u>, which is based on the EU General Data Protection Regulation (GDPR).</p>	
<p>Place &amp; Date: <u>Ventspils, 06.09.2019</u></p> <p>Signature of the applicant: <u></u></p>	



<p>28.06.2018 <i>[Signature]</i></p> <p>Date and Signature of the applicant</p>	<p>I confirm that the proposed STM is in compliance with the agenda of my organisation</p> <p>29.06.2018 <i>[Signature]</i></p> <p>Date and Signature of the director of the home institute</p>
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**JIVE**

Joint Institute for VLBI  
ERIC

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**Jānis Šteinbergs**

Ventispils International Radio Astronomy Centre (VIRAC)

Inženieru iela 101

LV-3601 Ventspils

Latvia

Dwingeloo, 29 June 2018

Dear Jānis,


We were pleased to hear about your interest for a short stay at JIVE. We have a close relationship with your institute VIRAC and we are very interested in developing new common activities. Furthermore, VIRAC and JIVE already collaborate in projects like BRAND, part of the EC funded RadioNet project. In view of this, it would be good to have an opportunity to discuss some topics of mutual interest.

One of them would be the familiarisation with our SFXC correlator and general correlation procedures. This visit would be a good opportunity for you to increase your understanding of our correlator, which could eventually lead to the use of SFXC at the Irbene local interferometer. VLBI data processing should also be of interest for you, as VIRAC is ramping up activities with its refurbished radio telescopes.

We are pleased to invite you for a short stay at JIVE, which could take place any time from August through September 2018. The duration of your stay and the exact dates can be decided at a later stage.

We are sure that this stay will reinforce the contacts between VIRAC and JIVE, and that it will be useful for the EVN in general.

Best regards,



NAME'S

Arpad Szomoru

Head Technical Operations and R&D

Joint Institute for VLBI ERIC