

### PERSONAL INFORMATION

Name	Jader Monari
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E-mail	<a href="mailto:j.monari@ira.inaf.it">j.monari@ira.inaf.it</a>
Country and nationality	Italy - Italian
Date of birth	23/02/1970
Military position	Left 28/12/1997
	Engineer qualified for freelancing since 1996

### MAIN WORK EXPERIENCES

- Date 1995-1996
- name and address of the employer **Università di Bologna.**  
Department of Electronics, Computer Science and Systems.
- Type of employment Laboratory assistant
- Main tasks and responsibilities Teaching assistance for student support
  
- Date 1996
- name and address of the employer **Microsys.**  
Bentivoglio (Bo).
- Type of employment Electronic Engineer
- Main tasks and responsibilities Design of microprocessor boards for the development of bar readers.
  
- Date 1997-1998
- name and address of the employer **Fire brigade**  
Comando provinciale di Bologna
- Type of employment Firefighter Auxiliary with discontinuous service
- Main tasks and responsibilities
  
- Date 1998
- name and address of the employer **Alenia Spazio**  
Torino.
- Type of employment Technological coordinator of the scientific part for the development of RF chains.

- Main tasks and responsibilities
    - Date
  - name and address of the employer
    - Type of employment
    - Main tasks and responsibilities
  - Date
  - name and address of the employer
    - Type of employment
    - Main tasks and responsibilities
- Preliminary study of radiometers of the SPOrt experiment - Sky Polarization Observatory - at frequencies 22,32,60,90 GHz (Kick Off and Phase A).
- 1999-2001**  
**CNR Istituto di Radioastronomia**  
 Bologna.  
 Temporary and then permanent position; technological coordinator for the scientific part in the development of RF chains.  
 Study and specifications of the radiometers of the SPOrt experiment (Phase AB).
- 2001 - TODAY**  
**CNR (then INAF) Istituto di Radioastronomia**  
 Bologna.  
 Tecnologo III livello  
**Manager - Medicina Radio Astronomy Station**  
 Coordination of station activities, actions towards the authorities and external interlocutors for fundraising; in charge of the organization of the station human resources in order to guarantee the correct performance of all the activities.
- Square Kilometre Array (SKA) Low Frequency Aperture Array (LFAA)**  
 Member of the SKA Italy board and Italian coordinator of all technical / scientific activities related to the low-frequency part of the LFAA.
- Board member for low-bridging activities for the deployment of the SKALA4AL mini-array Aperture Array Verification 2 (AAVS2) in Australia.  
Work Package Leader for the receiver part of the Aperture Array Design Consortium (AADC) of LFAA / EDA2. Assigned by INAF-DS to supervise the activities in the various WPs and, in particular, the development of the Italian SKALA4AL and Vivaldi antenna and the Tile Processing Module (TPM) acquisition systems.
- Member and coordinator of campaigns for the production of the receiving / TPM systems for the deployment of the first 256-antenna station in Australia for the Aperture Array Verification System 1 (AAVS1) demonstrator.
- Participation in the design and deployment of the Sardinia Array Demonstrator (SAD) mini-array at the Sardinia Radio Telescope (SRT).
- Liaison Engineer for Italy (2008-2010) for prepSKA (preparation for SKA) work planning.
- Design of the EMBRACE receiver (400-1600MHz) within the FP6-SKADS (SKA Design System).
- Participation in the BEST project (Basic Element for SKA Training) for the realization of the 110-240MHz receiver.
- LOFAR Project**  
 Member of the LOFAR Italy board and coordinator of the project activities of the receiver for LOFAR2.0.
- Participation in ASI LOFAR Moon WP1200 feasibility studies
- Phase Array Feeds (PAF)**  
 Assignment by the DS to follow the construction of the PAF Pharos2 engineering prototype using the technology developed for LFAA
- Sardinia Radio Telescope**  
 Study of distribution systems at medium frequency (IF), local oscillator (OL) and synchronization for the 64m dish.  
 Participation in the construction of the 22GHz MultiFeed receiver architecture.

**Medicina 32m Radio Telescope**

Participation in the project of the new Vertex room and the new secondary focus receiver of the 32-m dish in Medicina.

Implementation of the interface for the back end of the station (MARK IV Interface for Single Dish Antenna - MARISA).

**Technological Innovation Office**

Member and collaborator; involved as a tutor and/or participant in various activities such as the PRISMA powder project, PRISMA tag RFid, Electrical Field Meter (EFM), RF Multiplexer, Interferometry for 3D metrology, 3D Audiovisuals for astrophysical sciences, Vivaldi antennas "Self powered".

**BAR SPORt (Baloon Airborne Radiometer for SPORt).**

Realization of RF chains, control and acquisition electronics and test benches for a 32GHz radiometer to be installed on a stratospheric balloon. In the same field, he later participated on behalf of ASI in the Millimeter Technological Development - Radiometric Detectors.

**SETI (Search for Extraterrestrial Intelligence).**

Installation of the Serendip IV system to the parabolic antenna in Medicina and design of the software pipeline for RFI filtering and detection of ETI signals. Member of the PSSG (Permanent Study SETI Group) of the IAA.

**EMBLA Project**

Participation in various missions and implementation of a Extremely Low Frequency Observatory (ELFO) low frequency receiver for the study of anomalous atmospheric luminous phenomena in the Hessdalen valley (Norway) in collaboration with the engineering university of Sarpsborg (Oslo).

**MKID (Multi Kinetics Inductor Devices)**

Coordinator of system design activities in collaboration with INFN and University of Rome Torvergata.

**OPERA (Osservatorio Permanente Emissioni RADiosismiche)**

Search for possible seismic precursors in ULF frequencies and now used together with the VIRGO network as a follow-up for gravitational waves in Ultra low frequencies (0.1Hz-30Hz).

**Outreach - Visitor Centre**

Participation in the development of the "Marcello Ceccarelli" visitor centre, in particular for the design and installation of some exhibits such as "Radionatura", "Ho 'sentito' una stella cadente!", SETI, SMART (SMAll Radio Telescope) and SPIDER (1.4GHz educational radio telescope).

Member of the INAF-IRA group that conceived and produced the 3D short movies "Avventura nell'universo invisibile" and "Come funziona: la radioastronomia".

Scientific promoter of the Institute's activities.

**Instructor Officer**

Disciplinary procedure of CNR POS5106600 PROT 639/01.

In fede  
**Jader Monari**

