<table>
<thead>
<tr>
<th>Position Title</th>
<th>Research Associate (WAVES Spectral Energy)</th>
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<tbody>
<tr>
<td>Classification</td>
<td>Level A</td>
</tr>
<tr>
<td>School/Division</td>
<td>Office of the Deputy Vice Chancellor (Research)</td>
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<tr>
<td>Centre/Section</td>
<td>International Centre for Radio Astronomy Research (ICRAR)</td>
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<tr>
<td>Supervisor Title</td>
<td>Laureate Fellow and Professor</td>
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<tr>
<td>Supervisor Position Number</td>
<td>321096</td>
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<tr>
<td>Position Number</td>
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**Your work area**

ICRAR is a WA State funded high profile equal joint venture established in 2009 between Curtin University and The University of Western Australia (UWA). The Centre’s headquarters are located at UWA, with research nodes at both UWA and Curtin. ICRAR is one of the lead Australian organisations participating in the international Square Kilometre Array (SKA) Project. ICRAR has been further funded from 2019 to 2024 with $60 Million by the WA State Government and equal contribution from the Joint Venture Universities. ICRAR is one of the largest astronomy organisations in Australia.

This position will join the Evolving Universe science unit at the International Centre for Radio Astronomy Research (ICRAR).

**Reporting structure**

Reports to: Laureate Fellow and Professor

**Your role**

As a UWA-based Research Associate within the International Centre for Radio Astronomy Research (ICRAR), you will join Professor Driver’s Laureate team and take on a central role within the 4MOST WAVES collaboration to lead the construction of the panchromatic (X-ray to Radio) database. This will involve liaising with large international survey programs such as: eROSITA; the VRO LSST; ESA Euclid; and the SKA Pathfinders (ASKAP, MWA & MeerKat), and leading the effort to combine these data into coherent spectral energy distributions to extract their key physical parameters.

You will be expected to lead research using your spectral energy distributions and their derived measurements to improve our understanding in some or all of the following domains: the nearby galaxy population, galaxy and AGN unification, galaxy and AGN evolution, environmental dependencies.

WAVES will receive about 18% of the observing time on 4MOST over its first 5 years of operations (commencing in late 2024), and is the ROI based on a A$6million investment by UWA and the Australian community into the 4MOST Consortium, along with additional contributions from WAVES partners (predominantly the University of Hamburg). The WAVES goals are outlined in ESO Messenger Vol 175 and focused on the study of the dark matter distribution, galaxy populations, and galaxy and group evolution over the past 8 Gyrs.
You will become a core member of the WAVES team with full access to all 4MOST surveys and charged with leading the science exploitation of the combined spectroscopic and panchromatic data.

Specific responsibilities include: the construction of the WAVES panchromatic database and derived physical parameters (SFRs, Stellar Masses, Metallicities etc).

For more information, visit the below websites:
ICRAR: https://www.icrar.org
WAVESI: https://wavesurvey.org/

**Your key responsibilities**

Act as an international spokesperson and advocate for the 4MOST WAVES survey.
Participant in and possibly lead the WAVES Spectral Energy Distribution Science Team.

Oversee the construction of the SED database and the robust and routine extraction of physical parameters (supported by a Data Engineer, PhD and Masters students).

A strong desire to advance a truly panchromatic X-ray to radio perspective of galaxies and AGN.

Lead a science program related to galaxy spectral energy distributions and their evolution.
Contribute to the supervision of ICRAR PhD and Masters students.
Contribute to the local Astronomy environment including taking on a service role at ICRAR.
Other duties as directed.

**Your specific work capabilities (selection criteria)**

Have a PhD in a field relevant to extragalactic astronomy.
A demonstrable track-record in science publications related to galaxy spectral energy distributions.
Familiarity with the application of an SED code and recovery of physical measurements.
Experience with large empirical panchromatic galaxy catalogues.
Excellent written and verbal communication skills.
Demonstrated ability to work independently, show initiative, problem solve and work productively as part of a team.
The ability to interact and collaborate with researchers and work reliability and effectively in distributed scientific collaborations.
Knowledge of high- and/or low-level computer programming (e.g. Python, R, C, C++, etc)
Experience working with any of 4MOST, LSST, eROSITA, Euclid or an SAK pathfinder would be highly regarded.
Experience in working with large teams.
Ability to work productively with students and/or contribute to outreach programmes.

**Special requirements (selection criteria)**

There are no special requirements.
Compliance

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including:

The University’s Code of Conduct hr.uwa.edu.au/policies/policies/conduct/code/conduct
Inclusion and Diversity web.uwa.edu.au/inclusion-diversity
Safety, health and wellbeing safety.uwa.edu.au/