POSITION DESCRIPTION:

SECTION A: Position Context

<table>
<thead>
<tr>
<th>Position Title</th>
<th>Assistant to the Director/Astronomer</th>
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<tbody>
<tr>
<td></td>
<td>Centre For Astrophysics And Supercomputing</td>
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<tr>
<td>Position Number</td>
<td>Pending</td>
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<tr>
<td>Classification</td>
<td>Academic B</td>
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<tr>
<td>Faculty</td>
<td>Information and Communication Technologies</td>
</tr>
<tr>
<td>Division</td>
<td>Higher Education</td>
</tr>
<tr>
<td>Effective Date</td>
<td>June 2007 (Position is ongoing)</td>
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University Information:

Swinburne University of Technology is a large multi-sectoral and multi-campus institution with a stated mission to be a pre-eminent entrepreneurial university from the Asia-Pacific, thriving on new ideas and knowledge and exploiting its intersectoral heritage to create value for its stakeholders.

Swinburne has campuses in metropolitan Melbourne at Hawthorn, Prahran, Lilydale, Wantirna, Croydon and Healesville and an overseas branch campus in Kuching, Sarawak. It also offers an increasing number of subjects and courses via the Internet. Its programs cover the education and training needs of over 40,000 students ranging from apprentices through to doctoral students.

Swinburne is proud of its close links with industry, business and the community generally. It has gained a prominent and respected name in education in Australia and overseas through:
- government funded programs and research;
- industry and business funded research;
- consultancy and training;
- fee-for-service teaching;
- an international focus for its curricula, student recruitment and operations.

Position Purpose:

The Centre for Astrophysics and Supercomputing at Swinburne University of Technology has become one of the largest astronomy groups in Australia and is seeking to further expand its research infrastructure, supercomputing and research outputs. This position will report to the Director and assist him/her to facilitate grant administration and reporting, while remaining engaged in teaching and research/outreach. The primary role of the Director’s Assistant position is to help in attracting and reporting on external grants and research, in particular the forthcoming RQF exercise. The main teaching responsibilities will be to assist in the maintenance of existing SAO course material, help in the preparation of new course material for the BSc, and teach into one or both of these programs. The successful applicant will work closely with the Academic Leader to ensure the continued success of the SAO program and ensure high quality learning materials are developed for the BSc program. Opportunities exist for pursuit of research and outreach activities.
The Swinburne Centre for Astrophysics and Supercomputing is part of the Faculty of Information and Communication Technologies. The Centre currently has approximately 45 full time staff and students and is committed to excellence in basic research, public outreach and education and the commercial applications of supercomputing. The Centre operates one of the most powerful workstation clusters in Australian and International Astrophysics, and in total the cluster has almost 12,000 Gflops of power, 2600 Gbytes of RAM and 250 Terabytes of disk space. The Centre also possesses a virtual-reality projection facility with direct access to the supercomputer for immersive 3D visualisation of data. The Centre runs school and public tours of the virtual reality theatre.

The Centre develops and delivers an online astronomy program, Swinburne Astronomy Online (SAO), currently teaching over 150 students into approximately 25 countries around the world. SAO is a nested program made up of Master of Science in Astronomy, Graduate Diploma of Science in Astronomy and Graduate Certificate of Science in Astronomy postgraduate degree programs. SAO is designed for amateur astronomers, science educators and communicators, people working in astronomy related fields, and anyone with a love of astronomy and a need to understand more about what is being discovered in contemporary astronomical research. SAO is not designed to produce professional research astronomers. Commencing in 2008, the Centre will also be involved in face-to-face teaching into a new Bachelor of Science degree which has a co-major in Astrophysics & Supercomputing as well as a minor in astrophysics.

The Faculty of Information and Communication Technologies formed in 2004 from a merger of the School of Information Technology, the Centre for Astrophysics and Supercomputing, and Telecommunications and Internet Technologies. There is approximately 120 EFT staff, including academic, administrative and technical positions. There is approximately a further 35 EFT staff employed specifically to support research activity funded by grants. There is approximately 2,000 EFTSL enrolled across all programs, of that number approximately 65 EFTSL or 79 students are enrolled in postgraduate research programs. A significant number of the students enrolled in the Faculty are full-fee paying international students.

The Faculty offers a wide range of innovative and industry-relevant undergraduate and postgraduate coursework and research programs. These programs are delivered at the Hawthorn and Sarawak campuses and also in Hong Kong. The programs encompass major academic disciplines of Astronomy and Computational Science, Computer Science and Software Engineering, Information Systems and Telecommunications and Networks.

The Faculty has the following highly research active centres: the Centre for Astrophysics and Supercomputing, the Centre for Advanced Internet Architectures, Centre for Component Software and Enterprise Systems, Centre for Intelligent Agents and Multi-Agent Systems, Centre for Internet Computing and E-Commerce, Centre for Intelligent Systems and Complex Processes, Centre for Molecular Simulation and Centre for Software Engineering.

**DIVISION**

The Higher Education Division located at Hawthorn and Prahran campuses has approximately 12,000 undergraduate and postgraduate students and over 600 academic and other staff. The relatively small size necessitates a focused approach to both course offerings and research activities. The Higher Education Division’s mission is to be a research-intensive technological university characterised by:

- Research activities of national prominence and international recognition focussed around the University’s chosen areas of excellence
- Students of high academic standard in a range of high quality specialist undergraduate and post-graduate coursework and research programs
- Being international in operation and perspective
- A significant level of self-determination arising from a sustainable balance between revenue generating activity and prestige.

The five faculties are:
- Faculty of Business and Enterprise
- Faculty of Design
- Faculty of Engineering and Industrial Sciences
- Faculty of Information & Communication Technologies

Swinburne University of Technology
Faculty of Life & Social Sciences

The Division has a range of undergraduate and postgraduate coursework and research programs focussed around the themes of:

- Professional engineering
- Information technology
- Business and innovation
- Design
- Multimedia
- Health and human services

Areas of research strength include:

- Advanced computing and modelling
- Advanced industrial technologies
- Astrophysics
- Biotechnology and bioengineering
- Brain function and cognition
- Entrepreneurship
- New communication technologies
- Optics and applied laser technology
- Social sustainability and well-being


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**Participation on Committees:**

Participate on committees and working groups as required.

**Supervision Reporting Relationships:**

<table>
<thead>
<tr>
<th>This position's supervisor/manager</th>
<th>This position reports to the Director of the Centre for Astrophysics and Supercomputing. On all teaching and curriculum development matters, the successful applicant will join the Centre staff in reporting to the Centre’s Academic Leader. Ultimately, the position reports to the Dean of the Faculty.</th>
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<tbody>
<tr>
<td>Other positions reporting to this position</td>
<td>Supervision of the technical staff and cadets as required in the production of educational and outreach material.</td>
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**Location:**

This position is currently located at the Hawthorn campus but the incumbent may be required to undertake duties at any of the University’s campuses. Thus the incumbent must be willing to travel between campuses and work at a range of locations.

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**SECTION B: Key Responsibility Areas**

The key responsibility areas (KRAs) are the major outputs for which the position is responsible and are not a comprehensive statement of the position activities.
**Key Responsibility Areas**

1. **GRANT ADMINISTRATION/REPORTING**
   - To help source research funding.
   - To assist with grant application development and reporting.
   - To assist in the preparation of annual reports.
   - To assist with the RQF or equivalent activities.

2. **EDUCATIONAL RESOURCES AND TEACHING**
   - To help develop and revise SAO course material.
   - To provide support for the delivery of online teaching.
   - To help develop new curriculum material for the BSc.
   - To teach into subjects as required by the Academic Leader.

3. **RESEARCH**
   - Apply for time on leading observational facilities and/or conduct theoretical astrophysical or educational research.
   - To publish refereed papers in international journals.
   - To obtain and supervise PhD students.

4. **OTHER**
   - Take part in the Centre’s outreach activities (e.g. AstroTour).
   - Undertake other duties as required by the Director and Academic Leader.

**SECTION C: Key Selection Criteria**

Application letters and/or resumes must address the **Qualifications**, and **Knowledge/Experience/Attributes** sections found under the key selection criteria. Preferably, applications should not exceed six (8) A4 pages in total.

**Qualifications**: Include all educational and training qualifications, licences, and professional registration or accreditation, criminal record checks etc. required for the position.

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>Essential/Preferable</th>
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<tbody>
<tr>
<td>Tertiary qualification PhD in astronomy/astrophysics.</td>
<td>Essential</td>
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</table>

**Experience / Knowledge / Attributes**: Required by the incumbent to successfully perform the positions key responsibilities.

<table>
<thead>
<tr>
<th>Experience / Knowledge / Attributes</th>
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<tbody>
<tr>
<td>1 Excellent written and reporting skills.</td>
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<tr>
<td>2 Demonstrated ability to clearly and concisely explain astrophysical concepts to a non-technical audience.</td>
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<tr>
<td>3 Be interested in contemporary trends in astronomy and online education.</td>
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<tr>
<td>4 Experience with public outreach activities in astronomy would be an advantage.</td>
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<tr>
<td>5 Be able to work well in a close-knit team of academics, administration and technical support staff to achieve short and long term research and educational outcomes.</td>
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<tr>
<td>6 Be able to assess the suitability of SAO course materials for a general audience and design and carry out revisions and extensions where necessary.</td>
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<td>7 Experience in managing a budget.</td>
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<td>8 Experience in supervising secondary school students in research related activities.</td>
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<td>9 Interact well with enthusiastic, adult, non-specialist students over the internet.</td>
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<td>10 Experience with tertiary astronomy teaching, preferably in an online course.</td>
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<td>12 Excellent organisational skills with the ability to prioritise tasks, plan tasks effectively and work to deadlines.</td>
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<td>13 Demonstrated capacity for accuracy and attention to detail.</td>
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<tr>
<td>14 Excellent interpersonal skills in providing advice and service with tact and maturity with staff, students and the public.</td>
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<tr>
<td>15 Excellent written and oral communication skills, which enable the incumbent to liaise effectively with staff, students and the public.</td>
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<tr>
<td>16 Excellent initiative and self-management skills to deal with the range of functions and tasks to be performed.</td>
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<tr>
<td>17 Ability to work independently and also a demonstrated ability to work cooperatively within a team.</td>
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**Swinburne Employee Attributes:**

Our employee attributes inform the selection process; however, a written response to the attributes is not required. The attributes are:

Φ Building Organisational Capability   Φ Creates a Learning Environment   Φ Drives Service Excellence
Φ Builds Relationships   Φ Demonstrates Personal Integrity   Φ Exhibits Entrepreneurial Skills
Φ Manages Change Effectively
Φ Sets Direction
Φ Provides Educational Leadership

Please click on the following link for information: Swinburne Employee Attributes

Further Information:

For further information, please contact the Centre Director, Prof Matthew Bailes on +61 (0)3 9214 8782 or email mbailes@swin.edu.au.

Date Position Description prepared and/or agreed ____ (For internal use on appointment of incumbent)

Occupant: (If applicable) ___________________________ Date: ___________________________
Signature
Supervisor:
Signature
Head of Department: ___________________________ Date: ___________________________
Signature

End of Position Description.

For more information, refer to following attachments/web links:
ATTACHMENT A: Swinburne Recruitment & Selection Guide
ATTACHMENT B: Swinburne Employee Attributes

Applications.

Applications should be directed to the Director, Professor Matthew Bailes mbailes@swin.edu.au by August 31 2007.

Applications should include an up to date CV with full publication list, a cover letter, and an application that explains why the applicant is suitable for the position (preferably not more than 6 pages).