

General Guidelines on Eligibility for Support: DSI - CSIR Inter-Bursary Support Programme (IBS)

Contents

1. Introduction	2
2. Eligibility	2
3. Value of the bursary award per annum	2
4. Payment Process and conditions of the bursary	2
5. Feedback	3
6. Reporting Requirements	3
7. Work-back requirements	3
8. Thematic Research Focus Areas	4
8.1. Aerospace	4
8.2. Composites	4
8.3. Modelling and Digital Sciences	4
8.4. Microsystems Technology	5
8.5. Titanium (Manufacturing Elements)	5
8.6. Photonics	5
8.7. Biotechnology	6
8.8. Information and Communications Technology	6
8.9. Indigenous Knowledge Systems (IKS)	6
8.10. Health	7
9. Continuation of funding	7
10. Successful completion of the online application form	7

1. Introduction

The Department of Science and Innovation (DSI) established the inter-bursary support programme for postgraduate studies to support capacity development in key strategic and priority areas identified in key departmental strategies. The Council for Scientific and Industrial Research (CSIR) is supporting the DSI in the development of skills in these areas.

2. Eligibility

- All students accepted for- or registered for **full-time** studies at any South African public university.
- All students who intend to register or are registered for the following:
 - **Honours/4th year Engineering/Postgraduate Diploma**
 - **Masters**
 - **Doctoral**

The CSIR-DSI Inter-Bursary Support Programme applications are restricted to those students **whose degrees are aligned to the thematic research areas and research themes/technology streams indicated below**. Supervisor endorsement and motivation will be required with each bursary application for Masters and Doctoral applications.

Preference will be given to applicants from previously disadvantaged backgrounds and people living with disabilities.

3. Value of the bursary award per annum

Level of Study	Funding Amount
Honours	R100 000
Masters	R120 000
Doctoral	R140 000

4. Payment process and conditions of the bursary

- **The full bursary amount will be deposited to the student’s university account to cover registration and tuition fees, the balance will be allocated on a monthly or quarterly basis by the university to the student.**
- This funding cannot supplement existing bursaries from other government sources (e.g. NRF or other government-derived bursaries). If the student, applies for more than one government derived bursary and becomes successful in all of those s/he should choose

only one before accepting this award. Once the funds have been legally paid to the student's university account, **the reversal of the funds is not allowed later in the course of the academic year.**

- Funding allocated for each bursary is for the specific academic year in which it was awarded. For first time registration, an Honours/4th year Engineering/Postgraduate Diploma award will be limited to one year, Master's award to two years and Doctoral award to three years.
- Funding is only guaranteed for one year, continuation of funding is dependent on student's performance and the availability of funds from the sponsor.
- The period of the award is calculated from the first year of registration of the study or research regardless of the Inter- Bursary Support Programme funding. **For example, a Master's student who obtains support in their second year of registration will only be funded for 1 year.**

5. Feedback

- Once an application have been made, applicants will be able to check their application status using the log-in details supplied to them during the initial application process.
- Communication will be sent to all the applicants within two months of the closing date of the applications to notify students of their application status.

6. Reporting Requirements

Honours/4th year Engineering/Postgraduate Diploma

- Students are expected to submit the results at the end of each semester.

Masters and Doctoral Students

- Students are required to submit mid-year progress reports, which are to be signed-off by the supervisor, at the end of the academic year, students must submit an annual progress report (APR).
- An official template for the APR will be provided. The purpose is to ensure that stated objectives are met within the stipulated timeframes.

7. Work-back requirements

Students are **NOT** subject to any work-back agreement with the CSIR upon completion of their studies.

8. Thematic Research Focus Areas

Preference will be given to projects within the below mentioned areas.

Honours/4th year Engineering/Postgraduate Diploma level students should state clearly which thematic research focus area they are applying for, so that it is clear that they can form part of the future pipeline development. It will be an added advantage to show whether their final year project is aligned with the research focus area.

Thematic research areas of interest for bursary support are summarised below:

8.1. Aerospace

Students interested in pursuing post graduate studies in areas relating to Aerospace, specifically within the research themes/technology streams prescribed from the Commercial Aerospace Industry Development Study (CAIDS) will be considered. Proposed projects must be directed towards one of the following:

- Aero-structures;
- Propulsion;
- Avionics;
- Sensors;
- Information Technology.

8.2. Composites

Students interested in pursuing post graduate studies in areas relating to Composites (natural fibre or bio-composites) may focus on any area of composites that contributes towards the improvement of lightweight components in one of the following areas:

- Transportation (including but not limited to general aviation, automotive and rail);
- Structural Applications (including but not limited to building and construction);
- Marine Applications (including but not limited to boat building).

8.3. Modelling and Digital Sciences

Prospective physics, mathematics, computer science and engineering postgraduate students intending to pursue topics in the following streams of information security are considered:

- Biometrics (including but not limited to fingerprint, iris, facial and gait recognition)
- Token-based authentication (including but not limited to smart card systems)
- Cybersecurity
- Data science

8.4. Microsystems Technology

Students interested in pursuing post graduate studies in areas relating to microfluidics and micro electro mechanical systems (MEMS), broadly referred to as Microsystems Technology, may focus on any area which will contribute towards the improvement of one of the following streams:

- Microfluidics
- MEMS
- Printed functionality
- Sensors

8.5. Titanium (Manufacturing Elements)

Students interested in pursuing post graduate studies in areas that are in support of the Titanium Centre of Competence (TiCoC), a program in support of a sustainable South African Titanium Industry that will contribute to future growth of the economy, will be considered. Preference will be given to projects that are aligned with research and development within the following streams:

- Primary Metal (Titanium) Production
- Titanium Powder Consolidation
- High Speed Additive Manufacturing
- Investment Casting
- High Performance Machining
- Friction Welding
- Sheet Forming

Cross-cutting aspects such as Physical Metallurgy and Characterisation, Design, Simulation and Modelling will also be considered.

Please note that students that are already funded under TiCoC will not be considered for funding in this program.

8.6. Photonics

Students interested in pursuing post graduate studies in the following areas will be considered:

- Free-space and Fibre Optics
- Optical tweezing
- Bio-photonics
- Quantum optics
- Laser research
- Quantum control with photonic systems



- Laser cooled atomic systems research
- Laser welding
- Free-space and fibre optical communication systems

8.7. Biotechnology

- Biopharming
- Bioprocessing
- Bio-catalysis

8.8. Information and Communications Technology

- Information Systems
- Computer Science
- Information Technology
- Electrical & Computer Engineering
- Electronic Engineering
- Information Systems Management
- Statistics
- Data Science
- Mathematical Statistics
- Applied Mathematics
- Epidemiology and Biostatistics
- Artificial Intelligence (AI)

8.9. Indigenous Knowledge Systems (IKS)

Students interested in pursuing post graduate studies in the following areas will be considered:

- Bio-economy (food security, health, technology, nutraceuticals and cosmeceuticals)
- Climate Change (Environmental Management)
- Technology Innovations
- Energy (alternative and clean sources)
- Agriculture (Indigenous agricultural practices)
- Engineering (Product and process development)
- Ethnobotany and Ethno-pharmacology
- Community engagement and scientific research

8.10. Health

Students interested in pursuing post graduate studies in the following areas will be considered:

- Pharmaceutical Sciences
- Biomedical Sciences
- Health Sciences (excluding Medicine, Dentistry and Veterinary Science)
 - Biochemistry
 - Pharmacology
 - Microbiology
- Physiology
- Pathology
- Forensic medicine
- Nutrition
- Biokinetics, Recreation and Sport Science
- Synthetic Biology
- Precision Medicine
- Molecular Biology
- Bioinformatics

9. Continuation of funding

Although the award is for the 2022 academic year, continuation of the award for Masters and Doctoral students will be dependent on the availability of funds and the academic progress of the student (as captured in the APR with input from the supervisor of the proposed research). Students will be notified about the outcome of their renewal via direct correspondence.

The applicant and supervisor must indicate when they submit their APR whether continuation support is required.

10. Successful completion of the online application form

Applicants are required to complete their online application forms in full. **Incomplete application forms will not be considered.**

All applications must be accompanied by the following supporting documents:

- Proof of South African Identity Document (ID) or Passport (for international students) and Permanent Residency
- Official and certified university degree certificates

- Transcript of academic record indicating a minimum accumulative academic achievement in previous degree.
- Recommendation letter by Supervisor (compulsory for master's and doctoral applicants).
- Admission letter indicating full time registration (if available). This will be required if application is successful.
- Reference Letters (if available). This will be required if application is successful.

It is the responsibility of the student to find a suitable supervisor and ensure that the supervisor supports the application.

Contact details

For Enquiries the CSIR may be contacted by email at HCD-Interbursary@csir.co.za