General Guidelines on Eligibility for Support by the
DSI-CSIR Inter-bursary Support Programme

The Department of Science and Innovation (DSI) recently launched the DSI – CSIR Inter-bursary Support Programme aimed at supporting capacity development in 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. In this regard, postgraduate students are invited to submit applications for bursary support.

1. **Who qualifies?**

Students approved or registered for **fulltime*** studies for **Master's** or **PhD** degrees at any South African public university may apply. Students who intend to register for **Honours/4th-year Engineering/BTech** will also be considered. Applications for the DSI-CSIR Inter-bursary Support (IBS) Programme are restricted to those students **whose degrees are aligned to the research areas and technology streams indicated below.** Supervisor endorsement and motivation will be required with each bursary application.

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

*An IBS-funded student is only allowed to do part-time work for up to a maximum of 12 hours per week.

2. **What is the value of the bursary award per annum?**

Honours	R75 000
Master's	R100 000
PhD	R130 000

The full bursary amount is to be allocated to the student's university account and the university will allocate it to the student on a monthly or quarterly basis. This funding cannot supplement existing bursaries from other government sources (e.g. National Research Foundation or other DSI-derived bursaries). If the student applies for more than one government-derived bursary and becomes successful in all of those, he/she must choose only one before any funds can be allocated from the CSIR to the university. Once the funds have been legally paid to the student's university account, **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/BTech award will be limited to one year, Master's award to two years and PhD award to three years. The period of the

award is calculated from the first year of registration of the study or research, regardless of the IBS funding. For example, a Master's student who obtains support in their second year of registration will only be funded for 1 year.

3. What are the reporting requirements?

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

4. How will feedback be given?

All successful applicants will be informed by e-mail and are required to accept the allocated funds by signing an **Award Letter, Bursary Contract and submitting their proof of registration within the prescribed period**. The funds will be processed by the CSIR and the student should follow up with the university's fees office after two weeks of submission.

5. Any work-back requirements?

Students are not subject to any work-back agreement with the CSIR upon acceptance of the bursary.

6. What are the Thematic Research Focus Areas?

Preference will be given to projects within the areas mentioned below. However, other technology areas may also be considered.

Research areas of interest for bursary support are summarised below.

6.1 Aerospace

Students proposing to do postgraduate studies in areas relating to aerospace, specifically within the technology streams prescribed from the Aerospace Sector Development Plan, will be considered. Proposed projects must be directed towards one of the following technology streams:

- Aerostructures;
- Propulsion;
- Avionics;
- Sensors; and/or
- Information Technology.

6.2 Composites

Students proposing to do postgraduate 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); and/or

- Marine Applications (including, but not limited to, boat building).

6.3 Modelling and Digital Sciences

Prospective physics, mathematics, computer science and engineering postgraduate students intending to pursue topics in the following streams of information security will be 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; and/or
- Data science.

6.4 Microsystems Technology

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

- Microfluidics;
- MEMS;
- Printed functionality; and/or
- Sensors.

It is critical that the chosen areas be aligned with the ability to build a pipeline of expertise in the area of Microsystems.

6.5 Titanium (Manufacturing Elements)

Students proposing to do postgraduate studies in areas that are in support of the Titanium Centre of Competence (TiCoC), a programme 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 (Ti) Metal Production;
- Ti Powder Consolidation;
- High Speed Additive Manufacturing;
- Investment casting;
- High-performance Machining;
- Friction welding; and/or
- Sheet forming.

Cross-cutting aspects, such as Physical Metallurgy and Characterisation, design, simulation and modelling will also be considered.

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

6.6 Photonics

Students proposing to do postgraduate studies in the following areas will be considered:

- Free-space and Fibre Optics;
- Optical tweezing;
- Biophotonics;
- Quantum optics;
- Laser research;
- Quantum control with photonic systems;
- Laser cooled atomic systems research;
- Laser welding; and/or
- Free-space and fibre optical communication systems.

6.7 Biotechnology

- Biopharming;
- Bioprocessing; and/or
- Biocatalysis.

6.8 Information and Communications Technology

- Information Systems;
- Computer Science;
- Information Technology;
- Electrical and Computer Engineering;
- Electronic Engineering;
- Information Systems Management;
- Statistics;
- Data Science;
- Mathematical Statistics;
- Applied Mathematics; and/or
- Epidemiology and Biostatistics.

Honours/4th-year Engineering/BTech 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 if their final year project is aligned with the research focus area.

6.9 Indigenous Knowledge Systems (IKS)

Students proposing to do postgraduate studies in the following areas will be considered:

- Bioeconomy (African traditional medicine, food security, health, technology, nutraceuticals and cosmeceuticals);
- Climate change (Environmental Management);
- Technology Innovations;

- Energy (alternative and clean sources);
- Indigenous farming practices;
- Engineering (product and process development); and/or
- Ethnobotany and Ethnopharmacology.

6.10 Health

Students proposing to do postgraduate 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;
- Public health;
- Nutrition; and/or
- Biokinetics, Recreation and Sport Science.

7. How will continuation support work?

Although the award is for the 2020 academic year, continuation of the award for currently funded Master's and Doctoral students will be based on the annual progress report that will have to be completed by the applicant, with input from the supervisor of the proposed research. Students will be notified about the outcome of their renewal via direct correspondence.

When they submit their APR, the applicant and supervisor must indicate whether or not the applicant is requesting continuation support.

8. What are the contact details?

The CSIR may be contacted by e-mail at HCD-Interbursary@csir.co.za