

DST-CSIR BURSARY

Inter-Bursary Support Programme

CALL FOR APPLICATIONS

The Department of Science and Technology (DST) and the Council for Scientific and Industrial Research (CSIR) invite applications for a bursary under the DST-CSIR Inter-Bursary Support Programme (IBS) grant scheme.

The IBS postgraduate bursary is intended for full-time studies at any South African public university.



For Masters or Doctoral applicants, the focus areas for the bursary support are restricted to the following research areas:

- AEROSPACE
- COMPOSITES
- MODELLING AND DIGITAL SCIENCES
- MICROSYSTEMS TECHNOLOGY
- TITANIUM (MANUFACTURING ELEMENTS)
- PHOTONICS
- BIOTECHNOLOGY (BIOPHARMING, BIOPROCESSING OR BIOCATALYSIS)
- INFORMATION AND COMMUNICATIONS TECHNOLOGY

For applications towards Honours, fourth year in Engineering or B Tech studies you may apply if your major subjects are in science, engineering and technology. For example:

- CHEMISTRY
- PHYSICS
- COMPUTER SCIENCE
- INFORMATION SYSTEMS
- DATA SCIENCE OR ICT RELATED MAJORS
- MATHEMATICS/APPLIED MATHS/ STATISTICS
- BIOTECHNOLOGY AND RELATED MAJORS
- ENGINEERING & RELATED MAJORS

What is the value of the bursary award per annum?

HONOURS R60 000 | MASTERS R90 000 | PhD R120 000

How do I apply? Application forms and more information about the IBS postgraduate bursary can be obtained from the postgraduate funding office of each of the public universities. Please complete the application forms and send the completed document (preferably in pdf format) with supporting attachments, by email to the IBS administrator at: HCD-INTERBURSARY@csir.co.za

When will I receive feedback?

Feedback will ONLY be sent to successful applicants, within two months after the closing date of the applications.

CLOSING
DATE
30 SEPT
2017



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

CSIR

our future through science

CSIR – DST Inter-Programme Postgraduate Bursary Support

General Guidelines

The Department of Science and Technology (DST) has recently launched its inter-programme postgraduate bursary support scheme, 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 DST in the development of skills in these areas. In this regard, post-graduate students are invited to submit applications for bursary support.

1. Who qualifies?

Students approved for 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. The CSIR-DST Inter-Bursary Programme applications 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.

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

Honours	R60 000
Masters	R90 000
PhD	R120 000

The full bursary amount is to be allocated to the student. This funding cannot supplement existing bursaries from other government sources (e.g. NRF or other DST-derived bursaries).

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 Inter-Programme Bursary funding. For example, a Master's student who obtains support in their second year of registration will only be funded for 1 year.

3. 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 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.

4. Feedback

All successful applicants will be informed by email and are required to accept the allocated funds by signing an **Award Letter**. The funds will be processed by the CSIR. Details on the process to be followed to enable the transfer of funds will be communicated to the students once the signed Award Letter is received by the CSIR.

5. Any work-back requirements?

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

6. Priority Research Focus Areas

Research areas of interest that will be prioritized for bursary support are summarised below:

6.1 Aerospace

Students proposing to do post graduate 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;
- Information Technology.

Preference will be given to projects within the above mentioned technology streams but other streams may also be considered.

6.2 Composites

Students proposing to do 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 one of the following streams:

- 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).

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 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

6.4 Microsystems Technology

Students proposing to do 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

Preference will be given to projects within the above mentioned areas. It is critical that chosen areas will align with the ability to build a pipeline of expertise in the area of Microsystems.

6.5 Titanium (Manufacturing Elements)

Students proposing to do 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 (Ti) Metal Production
- Ti Powder Consolidation
- High Speed Additive Manufacturing
- Investment Casting
- Hi 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.

6.6 Photonics

Students proposing to do post graduate studies in the following streams 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
- Free-space and fibre optical communication systems

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

6.7 Bio-technology

- Biopharming
- Bioprocessing
- Biocatalysis

6.8 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

Honours/4th year Engineering/BTech level students should state clearly which 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.

7. Continuation support

Although the award is for 2018 academic year, continuation of the award for currently funded Masters and Doctoral students will be based on the annual progress report which 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.

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

8. What are the contact details?

The CSIR may be contacted (attention - Dr Paul Motalane) by email at HCD-INTERBURSARY@csir.co.za.

CSIR-DST Inter-Programme Postgraduate Bursary Support

BURSARY APPLICATION FORM

MASTERS OR DOCTORAL LEVEL

For 2018 Year of Study

NB: These Application forms must be completed by NEW Masters and Doctoral students only. Students who were recipients of this bursary at Honours level last year and wish to receive the bursary again for Masters study, they should complete this form. Students who are already recipients of this bursary at Masters and Doctoral level do not need to complete this form. They will be sent an Annual Progress Report Template to complete in due course.

Please read the eligibility guidelines before proceeding with the application (See CSIR DST Inter-Bursary - Eligibility Guidelines document). Only fully completed application forms will be considered. Please type in the information (no handwritten submissions will be considered).

All applications must be accompanied by the following documents:

- Proof of South African Identity Document (ID) or Permanent Residency or Passport
- Official and certified university degree certificates
- Transcript of academic record indicating a minimum accumulative academic achievement in previous degree.
- Recommendation by Supervisor (compulsory for master's and doctoral applicants).
- Admission letter indicating full time registration (if available). This will be required if successful.
- Reference Letters (if available).

Please note the following: All required documents must be attached as one PDF file in the following order: Identity document, proof of permanent residence and university employment letter (if applicable), certified university degree certificates and transcripts, letter of admission (if available).

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

Section A: Personal and Contact Information

Please complete the following section in full. Incomplete application form will not be considered.

Student Name(s):	
Surname:	
Title:	
Gender:	
Race:	
Nationality:	
Institution:	
Department:	
Student Number:	
Indicate whether you are a Full-time or Part-time student	
Student ID Number (RSA students) / Student Passport No. (Non-RSA)	
Email Address:	
Telephone Number:	
Home Address (include Province)	
Indicate type of physical disability (if any)	

Section B: Bursary Information

Bursary applying for: <i>Delete that which is not applicable</i>	PhD MSc
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Section C: Research Area Information

NB: This section should be completed by Masters and PhD level applicants ONLY.

Year of study being applied for (<i>is this 1st, 2nd or 3rd year that you are registering for your MSc/PhD ?</i>): <i>Delete that which is not applicable</i>	1 2 3
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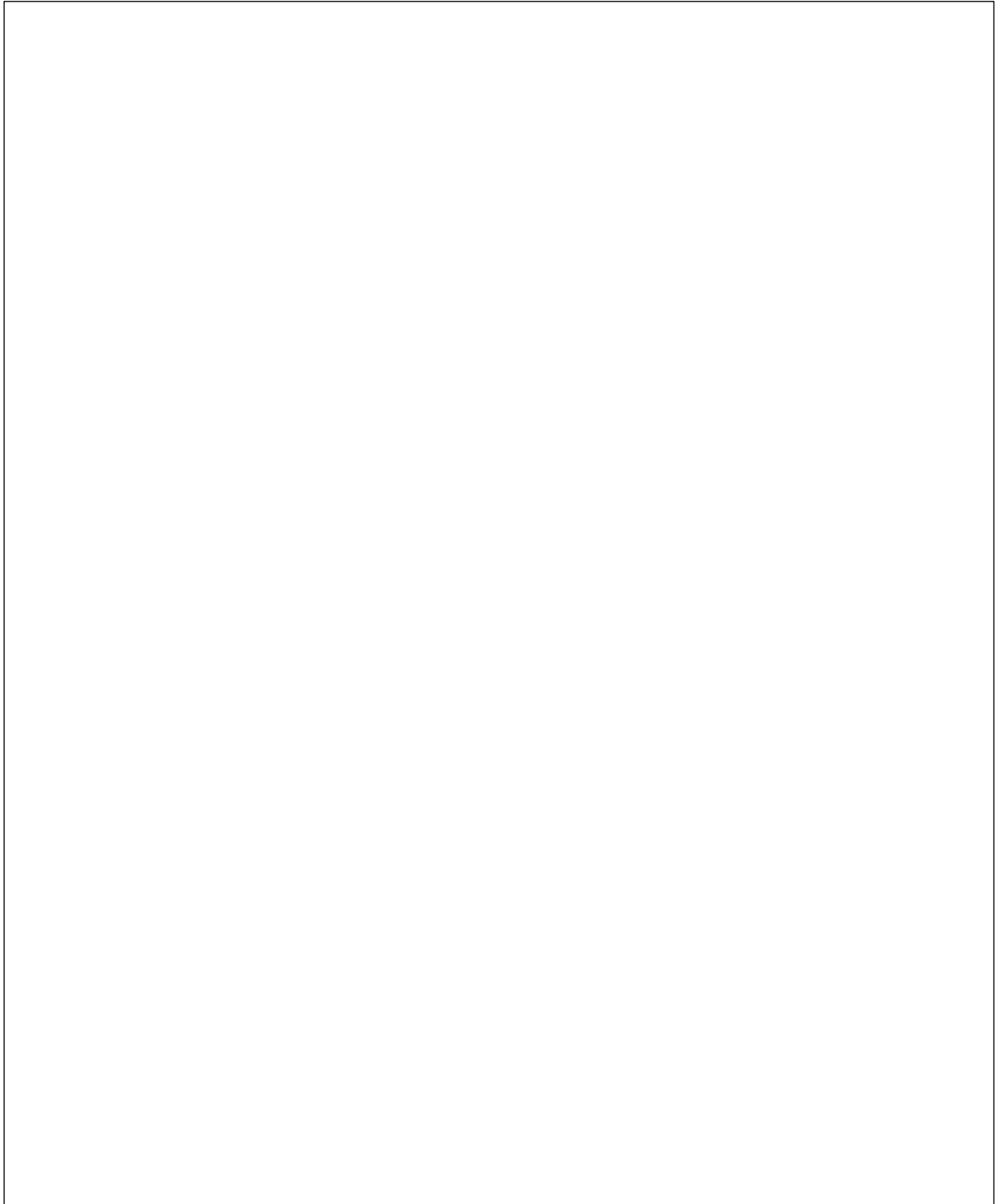
Priority research area (See <i>Eligibility Guidelines</i> document): <i>Delete priority area which is not applicable</i>	Aerospace Composites Modelling and Digital Sciences: Information Security Microsystems Technology Titanium (Manufacturing Elements) Photonics Biotechnology <ul style="list-style-type: none"> • Biopharming • Bioprocessing • Biocatalysis Information and Communications Technology
Technology Stream or research areas of interest (See <i>Eligibility Guidelines</i> document for some examples)	

Section D: Project Information

Research Project Title:

Problem Identification:

(Brief description of the problem and research question (s) to be addressed):

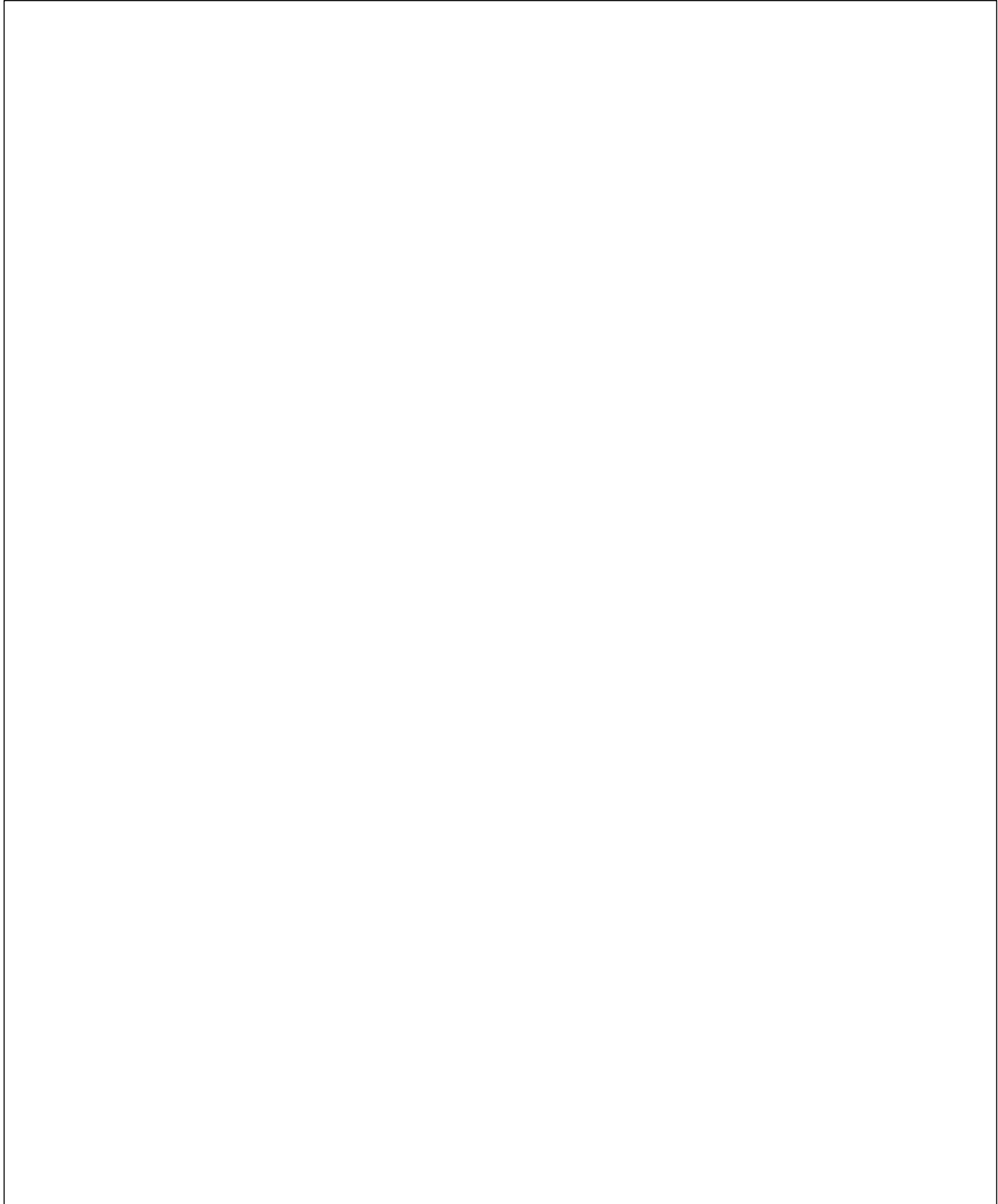
A large, empty rectangular box with a thin black border, intended for the user to provide a brief description of the problem and research question(s) to be addressed.

Research Aims and Objectives:

(Briefly outline the main aim(s) of the proposed research and specify the research objectives to be achieved)

Expected Outputs, Outcomes and Impact:

(Outline of the expected direct and indirect outputs/outcomes/impact of the research on the advancement of scientific knowledge)

A large, empty rectangular box with a thin black border, intended for the user to write the expected outputs, outcomes, and impact of the research. The box is currently blank.

Motivation by Supervisor:

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Date		Title	
		Name(s) and Surname	
		Signature	

Section E: Declaration by Applicant

I herewith declare that to the best of my knowledge:

- I will adhere to the conditions of the grant as described in the letter of award if my application is successful.
- In terms of the Income Tax Act NO. 58 OF 1962 (Section 10(1)(q) and the Seventh Schedule to The Act), a bursary recipient is obliged to declare whether they are a relative with any employees of the CSIR (*see definition of relative below). If you are related to any employee of the CSIR please provide the name of the employee(s) and how you are related to them in the space below:

**Relative in relation to any person, means the spouse of such person or anybody related to him or his spouse within the third degree of consanguinity, or any spouse of anybody so related, and for the purpose of determining the relationship between any child referred to in the definition of "child" in this section and any other person, such child shall be deemed to be related to its adoptive parent within the first degree of consanguinity.*

Do you have a relative(s) working at the CSIR? YES/NO	
If YES, give name and surname of that CSIR employee(s) here.	
Signature of applicant:	
Place:	
Date:	

Section F: Endorsement by Postgraduate Office/Research Office

Please get an official from the Research Office/Postgraduate Office to sign your application form in order to give your university an indication that you are applying for funding support.

Official details	Name:	
	Email:	
	Telephone number:	
	Signature:	

Please scan as a pdf and submit by return email to: HCD-INTERBURSARY@csir.co.za