



TWAS – S.N. Bose National Centre for Basic Sciences

Postgraduate Fellowships in Physical Sciences

Application form

(To be typewritten in English)

Send completed application form and enclosures to:

TWAS Fellowships Office
c/o The Abdus Salam Centre for Theoretical Physics (ICTP)
Strada Costiera 11
34014 Trieste, Italy

Phone: +39-040-2240314
Fax: +39-040-2240689
E-mail: fellowships@twas.org

Deadline: 31 August of each year

Applicants should apply to only one TWAS Fellowship Programme per year, choosing the most suitable programme for his/her needs. This applies to the following fellowship programmes: CAS (China), CNPq (Brazil), CEMB, ICCBS (Pakistan), IACS, DBT, CSIR and S.N. Bose (India), Research & Advanced Training and Postgraduate Training Fellowships for Women Scientists in Sub-Saharan Africa and Least Developed Countries (LDC) at Centres of Excellence in the South (TWOWS).

TWAS – S.N. Bose National Centre for Basic Sciences

Postgraduate Fellowships in Physical Sciences

The Academy of Sciences for the Developing World [formerly Third World Academy of Sciences] (TWAS), Trieste, Italy – www.twas.org – and the S.N. Bose National Centre for Basic Sciences, Kolkata, India – www.bose.res.in – have agreed to offer five fellowships annually to young foreign scientists from developing countries who wish to pursue research leading towards a PhD in physical sciences.

Programme Details

- The fellowships, tenable at the S.N. Bose National Centre for Basic Sciences in Kolkata, India, will be awarded to young students from developing countries to enable them to pursue studies leading towards a PhD degree in physical sciences.
- Admission to the PhD programme at the S.N. Bose National Centre will depend on the successful completion of course work (about one year's duration).
- Successful candidates will be provided with an S.N. Bose National Centre "Junior Research Fellowship" starting from the first year, amounting to Rs 8,000.00 per month as well as free on-campus accommodation. In the event that accommodation on campus is not available, an additional amount of Rs. 2,400.00 will be paid towards house rent. The Centre may also provide travel expenses for participation in conferences, seminars *etc.*, on a case-by-case basis.
- TWAS will cover the cost of international air travel (economy class and shortest route) as well as other expenses incurred in connection with the travel to India and back home.
- Applicants must apply to only one TWAS Fellowship Programme per year. For example, applicants to the BOSE postgraduate programme cannot also apply to other TWAS Fellowship Programmes, including those provided through CAS (China), CNPq (Brazil), CEMB, ICCBS (Pakistan), IACS, DBT, and CSIR (India), Research and Advanced Training, and TWOWS Postgraduate Training Fellowships for Women Scientists in Sub-Saharan Africa and Least Developed Countries (LDC) at Centres of Excellence in the South.

Research Areas carried out at the S.N. Bose National Centre for Basic Sciences:

- Electronic structure and physics of materials.
- Soft condensed matter, complex systems and statistical physics.
- High energy physics and mathematical physics.
- Optics, mesoscopic phenomena and chemical physics.
- Astrophysics.
- Experimental physics: magnetism, in particular manganites, Birkhaussen effect, Mössbauer spectroscopy, superconductivity, mechanical stress-strain relaxation, dielectric spectroscopy in the nano and pico time scales, as well as noise measurements in terms of resistance fluctuation spectroscopy.
- Nano science and technology: Synthesis of nano materials; physical measurements using scaling probe microscopy; mesoscopic phenomena; electronic structure and modelling; nanolithography; nanobiophysics.
- Theoretical chemistry: Density functional theory, quantum fluid dynamics and applications; atoms/molecules under intense or super-intense laser fields; atoms/molecules under strong magnetic fields; quantum chaos; computational quantum chemistry (novel molecules, nanoclusters, biomolecules, drug-DNA interaction modelling); theoretical spectroscopy and relaxation phenomena; simulation studies and non-equilibrium thermodynamics.

Eligibility

Candidates for these fellowships must meet the following criteria:

- be a maximum age of 30 years on 31 December of the application year;
- be nationals of a developing country (other than India) and be employed at a university or research institution there;
- hold a Master's degree in physics, mathematics or physical chemistry.
- Applicants must be accepted at a department of the S.N. Bose National Centre in India in order to be eligible for the fellowship (see sample Acceptance Letter).
- Applicants should submit the Acceptance Letter from a department of the S.N. Bose National Centre when applying or by the deadline at the latest. However, applicants can send their application form to TWAS before obtaining the preliminary acceptance ONLY if a preferred host department is indicated, so that, if needed the S.N. Bose National Centre can assist the candidate in obtaining preliminary acceptance from the designated host department. In these cases, applicants will have until the deadline to submit the acceptance letter to TWAS. Without preliminary acceptance the application will NOT be considered for selection.

Important to note

- **Incomplete/unsigned applications will NOT be accepted.** This also applies to submissions by fax and electronic mail which must include all enclosures and be signed (either digitally or by including a scanned signature).
- **Deadline for receipt of applications at TWAS Secretariat: 31 August of each year.**
- **Applications will ONLY be acknowledged when processed (Please, send the application to TWAS).**

CONTACT DETAILS

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c/o ICTP, Strada Costiera 11
34014 Trieste, Italy
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SAMPLE ACCEPTANCE LETTER FOR S.N. BOSE NATIONAL CENTRE FOR BASIC SCIENCES

It is important to note that you **MUST** already be accepted at a department in the S.N. Bose National Centre for Basic Sciences to be eligible for a BOSE-TWAS Fellowship. Please note that sandwich or part-time fellowships will be considered **ineligible**.

In those cases where applicants decide to send the application form before obtaining the preliminary acceptance in order to avail of the assistance of the S.N. Bose National Centre in contacting a suitable host department, candidates will have time to submit the acceptance letter to TWAS until the deadline of 31 August **at the latest**. It remains that without preliminary acceptance the application will NOT be considered for selection.

A head of department or the coordinator of postgraduate studies at the BOSE must sign the letter. Informal communication exchanged with Indian professors might be submitted, but it will not be considered as formal evidence of institutional acceptance.

[Host Institution's letterhead]
[Department's name]
[Postgraduate programme's name]
[Institutional address]
[Phone and fax numbers]
[E-mail address]

[Place and Date]

Dear _____ [candidate's name and surname] - _____ [country of citizenship],

This is to inform you that, as a candidate for a postgraduate fellowship under the agreement established by the TWAS and BOSE, you have been accepted for a FULL-TIME _____ postgraduate programme in _____ [field of specialization/academic programme], at this department.

If subsequently selected for a BOSE-TWAS Fellowship, you should begin your studies/research in the _____ [first or second] academic semester of _____ (year) and expect to conclude by _____ [month and year]. While researching at this institution, you will be under the supervision of Professor _____ [name and surname of supervisor].

Yours Sincerely,

Signature and name of head of department
or postgraduate studies coordinator

GENERAL INFORMATION Please remember to attach a photo of yourself and send a copy of your passport (even if expired), only of the page with personal details.

Surname (family name):		First name(s):	Attach passport-size photo
Gender: Male <input type="checkbox"/> Female <input type="checkbox"/>		Passport No:	
Nationality:		Date and place issued:	
Date of birth:		Expiry date:	
Place of birth (country):			
Applicant's contact address:		Name and contact details of a person to be contacted in case of an emergency:	
Phone:		Phone:	
Fax:		Fax:	
E-Mail:		E-Mail:	

ACADEMIC/PROFESSIONAL INFORMATION

Higher education Please enclose copies of all degrees awarded and university-issued transcripts.

Degrees awarded	Grade	Year	Field/Discipline	University

Academic/professional employment

Name and address of employer(s)	From	To	Position

TWAS Awards/scholarships received

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Referees. Names and addresses of two senior scientists familiar with applicant's work; their reference letters must be sent to TWAS directly.

Referee 1	Referee 2
Relationship to candidate:	Relationship to candidate:

Language skills												
ENGLISH	Understanding spoken language			Reading			Speaking			Writing		
	Excellent	Good	Poor	Excellent	Good	Poor	Excellent	Good	Poor	Excellent	Good	Poor
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FELLOWSHIP DETAILS

Name and address of department at the S.N. Bose National Centre where you have been accepted for PhD research. Please attach official letter of acceptance signed by the head of the department or the postgraduate programme co-ordinator at the host institution.

Name of the department	Address

Name and address of the supervisor at S.N. Bose National Centre

1. Name:	Surname:	Position:

Host institute address:

Phone:	Fax:	E-Mail:

Field/Area of the proposed research/study

Proposed PhD project. Please provide a detailed description of the proposed doctoral study/research plan.

Title:

Project details: (Use separate sheet, if necessary)

Accompanying dependents. NB: The Fellowships do **not** provide support for family members

Name	Relationship (mother, son...)	Period of stay

Applicant's acceptance of conditions governing the BOSE-TWAS Fellowships in India
Please note that unsigned applications cannot be accepted.
I herewith declare to accept the terms and conditions governing these fellowships. Moreover, I confirm that I shall return to my home country upon completion of my fellowship in India.
Signature:.....Date:.....

ENCLOSURES

Important: Ensure that ALL relevant enclosures are included with the completed application form!
<input type="checkbox"/> Passport size photograph <input type="checkbox"/> A copy of passport (even if expired), only of the page with personal details. <input type="checkbox"/> Curriculum Vitae and complete list of publications (do not send papers). <input type="checkbox"/> University degree certificates and relevant university transcripts of advanced courses for all academic degrees. <input type="checkbox"/> Official letter of acceptance signed by head of department of postgraduate programme coordinator at S.N. Bose National Centre. <input type="checkbox"/> Reference letters: Referees must send signed letters as attachment via e-mail directly to TWAS (fellowships@twas.org), the subject must contain candidate's surname OR letters must be sent in sealed envelopes by post. <input type="checkbox"/> Supporting statement from the head/director of the applicant's home institute country on headed paper if registered for PhD in home. <input type="checkbox"/> Certificate of proof of some proficiency in English.

OTHER INFORMATION

How did you find out about TWAS Fellowship Programmes?
<input type="checkbox"/> Direct mailing [to institution]. <input type="checkbox"/> TWAS website <input type="checkbox"/> Word of mouth/email from colleague. <input type="checkbox"/> Other (please specify):