No.12040/38/2012-FTC (Trg.)
Government of India
Ministry of Personnel, P.G and Pensions
Department of Personnel and Training
Training Division

Block-4, Old JNU Campus
New Mehrauli Road, New Delhi-67
Dated 27th April, 2012

TRAINING CIRCULAR

Subject: The United Nations/Italy Long-term fellowship Programme on Global Navigation Satellite Systems (GNSS) and Related Applications.

The undersigned is directed to state that United Nations Office for Outer Space Affairs letter dated 12.3.2012 inviting nominations for the fellowship of Master in Navigation and Related Applications -four 12-months fellowship tenable at Politecnico di Torino, Turin, Italy from September, 2012. This fellowship programme is being offered, through the United Nations Office for Outer Space Affairs (UN-OOSA), by Politecnico di Torino [School of Information Technologies] and Instituto SuperioreMario Boella (ISMB) with the collaboration of Instituto Elettrotecnico Nazionale Galileo Ferraris (IEN), Turin, Italy, for candidates from developing countries and countries with economy transition.

2 The Master in Navigation and Related Applications (MNA) Programme starts in September 2012 and lasts for 12 months, including a period ranging from 3 to 4 months for hands-on pilot project (internship). The MNA Program study provides extensive background knowledge in navigation/localization systems as well as a detailed analysis on NAV/COM integration and environmental monitoring applications.

3 The candidates are required to have completed Master Degree or equivalent (5 years University Degree) in Aerospace Engineering, Electrical Engineering, Environmental Engineering, Communication Engineering, Information Technology or related subject (Other degrees in different technological fields can be considered by the Master Commission); be under the age of 40 years at the beginning of training course; be proficient in written and spoken English.

4 In addition to the above, the following information in respect of the nominated officers may please be furnished while furnishing the nomination:
   a) Whether attended any foreign training programme in the past? If so, the duration/detail thereof?
   b) Whether clear from vigilance angle?
   c) Age;
   d) Whether working in North East State/J&K?
   e) A brief in 50-100 words justifying the nomination.
5. The selected participants will each receive a grant from Politecnico di Torino of about EUR 6,000 for the duration of their fellowship study (12 months) to cover housing, food, local transportation, etc. The offering institution will also cover tuition fee in full. International round trip air travel between the participant's international airport of departure and Turin, Italy will be provided by the UN-OSA.

6. It is requested that the nomination of the suitable candidates may please be forwarded in the prescribed application form (triplicate) to this Department in accordance with the eligibility criteria.

7. The applications should reach this Department through the Administrative Ministry not later than 8th May, 2012. Nominations received after the prescribed date will not be considered. The details of the programme and the application form may be drawn from Ministry of Personnel, Public Grievances and Pensions website (persmin.nic.in), which is available in “What is New” under the Department of Personnel and Training.

(N.K. Wadhwa)
Under Secretary to the Government of India

Copy to:

1. The Secretary, Department of Space, Lok Nayak Bhawan, New Delhi.
2. The Secretary, Ministry of Defence, South Block, New Delhi.
3. The Secretary, Department of Communications, Sanchar Bhawan, New Delhi.
4. The Secretary, Department of Science and Technology, Technology Bhawan, New Mehrauli Road, New Delhi.
5. NIC with the request to post the circular along with the United Nations Office for Outer Space Affairs circular and the enclosed application form on the Department’s website.
LONG-TERM FELLOWSHIP OPPORTUNITY
INFORMATION NOTE

The United Nations/Italy Long-term Fellowship Programme
On Global Navigation Satellite Systems (GNSS) and Related Applications


2. **Title:** Master in Navigation and Related Applications (MNA).

3. **Offering Institutions:** Politecnico di Torino (School of Information Technologies) and Istituto Superiore Mario Boella (ISMB), with the collaboration of Istituto Elettrotecnico Nazionale Galileo Ferraris (IEN), Turin, Italy.

4. **Executing Agency:** United Nations Office for Outer Space Affairs (UN-OOSA), Programme on Space Applications.

   **Contact Person:** The UN Expert on Space Applications

   **Address:** Office for Outer Space Affairs
   United Nations Office at Vienna
   P.O. Box 200, A-1400 Vienna, Austria

   **Phone:** +43-1-26060 4268
   **Fax:** +43-1-26060 5830
   **E-mails:** unpsa@unooosa.org, kurian.manivanipurathu@unooosa.org

5. **Duration and Beginning Date:** 12 months, beginning 24 September 2012. Selected participants are encouraged to attend orientation meetings at Politecnico di Torino (starts on the first week of September 2012) and Italian language intensive course (starts on the second week of September 2012) prior the fellowship study.

6. **Deadline for Applications:** Application form and other required documents (see section 12 below) shall be received in the UN Office for Outer Space Affairs by **15 May 2012**. Selected candidates will be notified on the outcome of their application by 10 June 2012.

7. **Fellowship Language:** English only

8. **Total Number of Fellowships Available:** Four.

9. **Brief Programme Description:** The Master in Navigation and Related Applications (MNA) Programme starts in September 2012 and lasts for 12 months, including a period ranging from 3 to 4 months for hands-on pilot project (internship). The MNA Program study provides extensive background knowledge in navigation/localization systems as well as a detailed analysis on NAV/COM integration and environmental monitoring applications.

   The MNA Programme includes 80 Educational European Credits (ECTS). Among the 80 credits, 50 credits are earned through taking courses, and 30 are completed as internship in
technical laboratories of ISBM and IEN, or hands-on project through a company operating in the field of navigation or in the production of navigation-related applications.

Selected participants should perform the pilot project in a technical lab in their own home country under the supervision of a local expert and in coordination with a member of the scientific committee of the MNA programme.

For additional details please see the attached booklet and visit the website of Politecnico di Torino: http://didattica.polito.it/master/navigation/.

10. Financial Arrangements: The selected participants will each receive a grant from Politecnico di Torino of about EUR 6,000 for the duration of their fellowship study (12 months) to cover housing, food, local transportation, etc. The offering institution will also cover tuition fee in full for these participants. International round trip air travel between the participant’s international airport of departure and Turin, Italy (most direct and economic route) may be provided by the UN-OOSA.

11. Admission Requirements: The MNA Programme candidates are required to have completed Master Degree or equivalent (5 years University degree) in Aerospace Engineering, Electrical Engineering, Environmental Engineering, Communication Engineering, Information Technology or related subjects. Other degrees in different technological fields can be considered by the Master Commission.

Written and spoken English is required, together with basic knowledge in communication theory and electronics.

Candidates also should have some experience in the following areas:
- Principles of digital communications and signal processing;
- Basics of electromagnetic wave propagation;
- Basics of software tools (e.g. Matlab) and programming languages (e.g. C).

12. Application to the Fellowship Programme: Fully completed application form should be submitted in duplicate by mail to the United Nations Expert on Space Applications no later than 15 May 2012. It may also be sent through the Office of the Resident Representative of the United Nations Development Programme (UNDP) in applicant country. To accelerate processing of application, an advance copy should also be e-mailed or faxed directly to the Office for Outer Space Affairs. For additional details, please refer to the enclosed document “Terms of Participation in the Long-term Fellowship Programmes”.

In addition to the enclosed UN-OOSA fellowship application form, all applicants are encouraged also to fill up the on-line application form of Politecnico di Torino as it will help to streamline the process of selecting recipients of the fellowship grants. Instructions on how to proceed with that and the link to appropriate webpage of Politecnico di Torino are available on the UN-OOSA website: http://www.unoosa.org/oosa/en/SAP/gnss/fellowships.html

Office for Outer Space Affairs, United Nations Office at Vienna, Wagnerstrasse 5, 1400 Vienna, Austria
Tel. (+43-1) 26090-0, Fax (+43-1) 26090-6839, www.unoosa.org
Upon reviewing the received applications, the organizers will pre-select a group of most qualified candidates and may request those pre-selected candidates to complete an on-line application form available on the web site of Politecnico di Torino (if it has not been done before) and to provide some additional information/details. A final selection of 4 participants of the fellowship programme will be made by Politecnico di Torino and UN-OOSA on a basis of evaluation of application documents received.

13. Responsibilities of the Nominating Government/Agency/Organization: The nominating government agency, organization or academic institution should bear the following costs on behalf of the selected participant for the duration of the fellowship programme:

- All expenses in the home country for preparation of travelling abroad, including passport, entry visa, medical examinations, inoculations, and other miscellaneous items, and domestic travel to and from the international airport of departure for Italy, in the home country;
- Salary and related allowances to which a participant may be entitled in his/her country during the period of the fellowship programme study;
- Life insurance and health insurance for the participant for the duration of the fellowship programme study.

14. Additional information: The latest information on/updates to the fellowship programme will be available on the website of the UN Office for Outer Space Affairs: http://www.unoosa.org/oosa/en/SAP/gnss/fellowships.html

Applicants are also advised to familiarize themselves with information from Politecnico di Torino website: http://didattica.polito.it/master/navigation/.
Terms of participation in the long-term fellowship programmes offered through and/or administered by the United Nations Programme on Space Applications

1. Participation

Applicants should be (i) nationals of developing countries or countries with economy in transition, (ii) duly nominated by their governments, (iii) age of candidate should not exceed forty (40) years, (vi) should have the academic and professional backgrounds required by the specific fellowship programme, and (v) should be able to make professional use of the experience gained in the study programme.

2. Documentation Required

a) Fellowship Application Form - should be (i) duly completed by the applicant (two copies), (ii) certified on behalf of the nominating government by the certifying officer* and (iii) forwarded by the certifying officer to the United Nations Expert on Space Applications by mail or through the Resident Representative of the United Nations Development Programme (UNDP) in the applicant's country.

   An advanced copy of completed and certified application form should be directly send by fax or e-mail to the Office for Outer Space Affairs.

   Documents (b) and (c) described below should be completed and forwarded directly to the United Nations Expert on Space Applications by the institution(s) or individual(s) providing the requested information but definitely not by the applicant(s):

b) Referee Reports. Three (3) completed Referee reports should be sent by the 3 referees, one of whom should be the employment or study supervisor of applicant, directly to the United Nations as indicated on the form.

c) Academic certificate. Two official copies of the education certificate as well as academic transcripts indicating the subjects and examination grades (marks) received in each subject should be submitted directly to the United Nations Expert on Space Applications.

d) Curriculum vitae signed and dated by applicant.

* The certifying officer shall not be lower in rank than the Head of the applicant's Department, Institution or Ministry. The certifying officer attests to the accuracy of the information provided by the applicant in his/her application form and the bona fide status of the applicant in his/her institution.
c) Diploma or certificate of competence in the language of the fellowship programme. If the official language of the applicant's country is different from the language of the fellowship programme, a diploma or certificate of competence in the language should be submitted directly to the United Nations Expert on Space Applications. This diploma/certificate should be issued by an accredited language institution or by the local UNDP upon satisfactory establishment of the applicant's competence in the language concerned.

3. Administrative Arrangements

a) Responsibilities of the United Nations

The United Nations will advertise the information on available fellowships and will, in consultation with the offering government/institutions, select qualified applicants as recipients of fellowship award.

The United Nations also may provide a number of selected participants with international round trip air ticket between the participant's international airport of departure and Turin, Italy.

b) Responsibilities of the nominating government/agency

The nominating government/agency will bear the following costs on behalf of the selected participant:

i) All expenses in the home country for preparing the abroad travelling, including passport and visa fees, medical examinations, inoculations, and other miscellaneous items, and domestic travel to and from the international airport of departure, in the home country;

ii) Salary and related allowances to which a participant may be entitled in his/her country during the period of the fellowship programme;

iii) Life insurance and health insurance for the benefit of the participant for the duration of the fellowship programme study.

Special consideration will be given to applicants in the case of their nominating government/agency taking responsibility for covering the round-trip international travel fare from home country to Turin, Italy.

c) Applicants for a fellowship programme should note that the United Nations and the government/institutions offering the fellowships will NOT assume responsibility for the following expenditures:

i) Any costs incurred by dependent or spouse who accompany the participant;
ii) Costs incurred by the participant with respect to travel insurance;
iii) Loss or damage of personal property while enrolled in the fellowship programme;
iv) Compensation in the event of death or disability of the participant in connection with his/her enrolment in the fellowship programme;
v) Any claim toward expenses incurred by participants other than what is specified in the fellowship programme description document.

d) **Termination of fellowship.**

The United Nations, in consultation with the offering government/institutions, reserves the right to terminate the fellowship programme of any participant upon commencement of the study if:

i) the participant's academic background regarding the subject of the fellowship programme is found to be inadequate; and/or

ii) the participant's knowledge and understanding of the language of the fellowship programme are found to be inadequate to pursue the programme of study; and/or

iii) the participant fails to observe proper conduct during the course of the fellowship programme study; and/or

iv) the participant withdraws himself/herself from the fellowship programme without any reasonable justification accepted by the offering institution.

In the above cases of the fellowship termination, the UN Office for Outer Space Affairs and offering government/institutions reserve the right to claim from participant or his/her nominating agency cost of air ticket (if it was provided by the United Nations) and/or of the fellowship grant received by the time of termination.

4. **Deadlines for Receipt of Applications**

Only applicants whose completed application forms and all other supporting documents are received by the United Nations in Vienna before or by the deadline established for the fellowship programme, will be considered in the selection process for the fellowship concerned.

**Special notice:** Applicants should note that selection of fellowship recipients is made on a very competitive basis, as a large number of applications are generally received for a limited number of available fellowships.
FELLOWSHIP APPLICATION FORM
(To be filled in by typing or in block letters)

The United Nations/Italy Long-term Fellowship Programme
On GNSS and Related Applications (Turin, Italy)
(deadline for submission: 15 May 2012)

Nominee’s full Name:

Nominee’s institution and country:

Hereby is nominated for the UN/Italy long-term fellowship programme on GNSS and Related Applications.
The nominating agency/organization
will be able [ ]
will not be able [ ]
to provide nominee’s international roundtrip air travel ticket to Turin, Italy.

The nomination is certified by

(Name of head of nominating organization)

(Official title of certifying officer)

(Signature of head of nominating organization)

Date:

COMPLETED APPLICATION FORMS AND ANNEXES SHOULD BE SENT IN DUPLICATE TO THE UNITED NATIONS OFFICE FOR OUTER SPACE AFFAIRS

Selected candidates will be notified by e-mail by 10 June 2012. Those candidates should then confirm their acceptance of the offer no later than in 5 days after notification.

Name, official title and professional relationship of three referees who are familiar with the applicant’s work and qualifications:

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<th>Relationship</th>
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PERSONAL HISTORY

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<th>Family name:</th>
<th>First name:</th>
<th>Other names:</th>
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<th>Date of birth:</th>
<th>Place of birth:</th>
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Official mailing address:  
Home address:  

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<th>Phone:</th>
<th>Fax:</th>
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E-mail 2:  

Person to contact in case of emergency:  
Relationship:  
Address:  

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EDUCATION

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<th>Institution</th>
<th>Dates</th>
<th>Field</th>
<th>Degree</th>
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Please indicate your specialization:  
- Electrical Engineering  
- Aerospace Engineering  
- Communication Engineering  
- Information Technology  
- Mechanical engineering  
- Environmental Engineering  
- Computer Science  
- Information Science  
- Physics  
- Other:  

Please state an average score/mark of passed exams during your final study:  
(e.g. 1-20 or A-F, 
and maximum grade obtainable - e.g. 20 or A)  

Those who come from a university which uses credits, please specify the type of system:  
- ECTS (European system)  
- USA system  
- Other (specify):  

Publications - list any relevant publications (papers or articles) (Attach an extra page if necessary):  

### Relevant courses, workshops, seminars or meetings you have attended in the last five years:

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<tr>
<th>Location</th>
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Please state briefly your reasons for applying to participate in this Fellowship Programme:

### EMPLOYMENT RECORD

**PRESENT POST: Title, unit and organization**

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<th>Dates:</th>
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<th>Name of supervisor:</th>
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<th>Description of your work</th>
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**PREVIOUS POST: Title, unit and organization**

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<th>Description of your work</th>
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**RELEVANT TECHNICAL BACKGROUND/EXPERIENCE**

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<td>□ YES □ NO</td>
<td>□ YES □ NO</td>
<td>□ YES □ NO</td>
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<th>Basics of Timing</th>
<th>Basics of Electromagnetic Wave Propagation</th>
<th>Programming Languages:</th>
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<td>□ YES □ NO</td>
<td>□ YES □ NO</td>
<td>□ YES □ NO</td>
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**CERTIFICATION OF KNOWLEDGE OF ENGLISH**

Name of candidate:

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<tr>
<th>ABILITY TO UNDERSTAND SPEECH</th>
<th>ABILITY TO SPEAK</th>
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<tbody>
<tr>
<td>□ Understands without difficulty</td>
<td>□ Speaks fluently</td>
</tr>
<tr>
<td>□ Understands almost everything</td>
<td>□ Speaks intelligibly</td>
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<tr>
<td>□ Requires frequent repetition</td>
<td>□ Speaks haltingly</td>
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<th>ABILITY TO WRITE</th>
<th>ABILITY TO READ</th>
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</thead>
<tbody>
<tr>
<td>□ Writes with ease and accuracy</td>
<td>□ Reads fluently</td>
</tr>
<tr>
<td>□ Writes slowly</td>
<td>□ Reads slowly</td>
</tr>
<tr>
<td>□ Writes with difficulty</td>
<td>□ Translates with difficulty</td>
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Other remarks:

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<th>TOEFL Certificate</th>
<th>□ YES □ NO</th>
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Certification by language examiner.

Language tested by:

(Name)

(Title of examiner)

(Institution, city, country)

Date of examination:

Signature of examiner: Seal of Language Institution

Please enclose your Curriculum Vitae, signed and dated by you, to this application form.
**CANDIDATE’S CERTIFICATION**

I hereby certify that the statements that I have made in this application form are true, correct and complete.

If selected, I hereby confirm that I will comply with the Terms of Reference of the Programme and I will make myself available for duration of the entire Fellowship.

<table>
<thead>
<tr>
<th>Date:</th>
<th>Signature of candidate:</th>
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This form, FULLY COMPLETED, should be submitted in duplicate by mail to the United Nations Expert on Space Applications, Office for Outer Space Affairs, United Nations Office at Vienna, Vienna International Centre, P.O. Box 500, A-1400 Vienna, Austria, **no later than 15 May 2012**. You may also send this application form through the Office of the Resident Representative of the United Nations Development Programme (UNDP) in your country.

To accelerate processing of your application, you should also fax an advance copy directly to the Office for Outer Space Affairs, fax: (+43 1) 26060 5830, or e-mail it to the following addresses: umpoa@unosa.org, karian.maniyapurantha@unosa.org

**IMPORTANT:** In addition to the current form, all applicants are encouraged also to fill up the on-line application form of Politecnico di Torino as it will help to streamline the process of selecting recipients of the fellowship grants. Instructions on how to proceed with that and the link to appropriate webpage of Politecnico di Torino are available on the UN-OOSA website: [http://www.unoosa.org/oosa/en/SAP/gnssfellowships.html](http://www.unoosa.org/oosa/en/SAP/gnssfellowships.html)

**NOTE:** **THIS APPLICATION IS VALID ONLY IF ALL AND EVERY INFORMATION REQUESTED IS PROVIDED.**
UNIVERSAL SPACE
Office for Outer Space Affairs

REFEREE'S REPORT

The United Nations/Italy Long-term Fellowship Programme
On GNSS and Related Applications
1 year, starting in September 2012, Turin, Italy
(deadline for submission: 15 May 2012)

Name of applicant
First                   Middle                   Last or family

Country of applicant

Name of referee
First                   Middle                   Last or family

Title of referee

Affiliation and mailing address of referee

The portion above should be completed by applicant

To the referee: Please complete the sections below. Your accurate evaluation of the applicant
named above is essential to the successful implementation of the United Nations Programme
on Space Applications. Your comments on the applicant will be kept confidential.

1. I have known this applicant (check as appropriate) as a graduate student ( ), as a
research assistant ( ), as a professional colleague ( ), other ( )

2. I was acquainted with the professional work of the applicant from _______ to _______

3. I had an excellent _____ good _____ fair _____ poor _____ opportunity to
observe his/her professional work.

4. In comparison with other individuals of similar training and experience, what is your
evaluation of the applicant with respect to the following:

Office for Outer Space Affairs, United Nations Office at Vienna, Viennasstrasse 5, 1400 Vienna, Austria
Tel. (+43-1) 26060-0, Fax (+43-1) 26060-5830, www.unoosa.org
UNIVERSAL NATIONS
Office for Outer Space Affairs

Knowledge of fundamentals in subjects relevant to or required for the fellowship programme:
Outstanding _____ Good _____ Average _____ Poor _____

Ability to make good scientific judgements:

Ability in self-expression:

Knowledge of language of the course:

5. In comparison with other individuals of similar training and experience, what is your evaluation of the applicant with respect to overall scientific or engineering ability:
Outstanding _____ Good _____ Average _____ Poor _____

6. The applicant will have _____ will not have _____ adequate opportunities in his/her country to make use of the skills to be gained through this fellowship programme.

7. If you respond in item (6) that the applicant will have adequate opportunities in his/her country, please describe the specific details of such opportunities.

8. Other comments that you think might be helpful in assessing the applicant's ability and potential.

Signature of referee __________________________ Date ______________

NOTE: In order to a proper evaluation of the applicant, the referee should kindly return this form (completed) directly to the United Nations Expert on Space Applications, Office for Outer Space Affairs, Vienna International Centre, P.O. Box 500, A-1400 Vienna, Austria, e-mails: unpsa@unoosa.org and kuran.marunipuranliu@unoosa.org.
receive a Master degree in Navigation and Related Applications.

Participate selected by ISM will receive a financial support for
the tuition fee and for other expenses during their study.

Full details on the fellowship programmes and application procedures
will be available shortly both on ISM website and on
http://www.uniroma3.it/concorsi and on the web site of Politecnico
di Torino at: http://www.polito.it/paolini/fellowship/Eng

Internships

Students will acquire 60 ECTS during a practical stage in a lab or in a
company operating in the field of navigation, that is devoted from
a minimum of 3 months to a maximum of 6 months, according an
agreed schedule with the hosting company.

How to Apply

For details please consult the web site or call the contact person listed
below.

"POLITECNICO DI TORINO"

"MASTER"

on Navigation
and Related Applications

Information on the Master Program and on
the UNI Roma3 Long Term Fellowship Program Hosted by ISM and
Politecnico di Torino.

[Image of building and logo]
The Master in Navigation and Related Applications is a joint initiative of Politecnico di Torino, School of Information Technology and Future Systems - Mireia Berlin (SESIST) with the collaboration of the Italian National Research Council (CNR) and the United Nations Office for Outer Space Affairs (UNOOSA).

This brochure provides information on the Master Program and on the United Nations, Long-term Fellowship Programme (UNLTFP) hosted by the Italian Space Agency (ASI) and Politecnico di Torino.

Overview and Overview

Innovative, related user services and applications urging related to user privacy, safety and security are increasingly urgent due to the potential benefits for the worldwide community.

The course, aimed at and able to face the challenges in terms of high-level professional skills, is divided into two main streams: the first one focuses on navigation, geomatics, and related applications; the second one focuses on telecommunication and information systems, with particular reference to satellite and space applications.

For this reason, the fellowship program (which supports the European initiative on the field of satellite navigation and related systems) will be a real boost for the development of navigation and geomatics applications in the space domain.

The Master’s degree is recognized by the Italian and European authorities as a national degree, recognized by the European Union for the purpose of recognition in order to facilitate work and study abroad.

In addition, it is to be noted that the territorial location, deep industrial roots, and the expertise of the Italian Space Agency (ASI) are a natural step for the diffusion of navigation-related services.

In the near future a substantial amount of additional personnel will be engaged in production and management of innovative navigation-related applications (European Space Agency (ESA) - 2015). At the same time, the Italian market is expanding thanks to the investments in the development of modern technology, services and applications, which require advanced technical skills as well as a broad vision of the navigation-related services.

The Master in Navigation and Related Applications is a joint initiative of Politecnico di Torino, School of Information Technology and Future Systems - Mireia Berlin (SESIST) with the collaboration of the Italian National Research Council (CNR) and the United Nations Office for Outer Space Affairs (UNOOSA).

Admission Requirements

The Master’s program is addressed to graduates in engineering, mathematics, natural sciences, or related fields. Other degrees in related technological fields could be taken into account by the Master Committee.

Candidates must have a solid background in mathematics, physics, and computer science, and be proficient in English.

Cultural Prerequisites

To be admitted to the Master program, candidates must have a solid background in the areas:

- Knowledge of digital communications and signal processing
- Basic knowledge of navigation principles
- Basic knowledge of telecommunication systems
- Strong motivation and commitment to the field

No prior knowledge in navigation is required.

Course Schedule and Syllabus

The Master’s program covers a wide range of topics, including navigation techniques, satellite communications, and geomatics. The course is designed to provide students with a solid foundation in the fundamental concepts of navigation and related applications, as well as practical experience through hands-on projects and case studies.

Course modules include:

- Satellite navigation systems
- Geomatics and positioning
- Communication systems
- Signal processing
- Digital communications
- Navigation principles
- Satellite technology

The course is designed to provide students with a comprehensive understanding of the key elements of navigation and related applications, as well as the ability to apply this knowledge in practical situations.