Interdisciplinary PhD Grants at Politecnico di Milano

Professor Paolo Biscari, Dean, PhD School

The most challenging problems in today’s research share a common feature: They must be tackled by assembling the combined efforts of individuals or researcher teams with different skills and expertise. Cross-fertilization between different tools, experimental methods and/or theoretical techniques paves often the way to emerging research strategies which could not have been identified otherwise. Starting from 2017, the Academic Senate of Politecnico di Milano will support interdisciplinary research on specific, strategic research topics, through the funding of interdisciplinary PhD grants. This new thematic grants have all the common feature that the research of the PhD candidate will be performed under the guidance of (and in collaboration with) two different research groups.

The 2017 call is focused on the following themes: Industry 4.0, Smart Cities, External Hazards, Health, Cultural Heritage. The following 21 doctoral grants have been selected for funding, and will be included in the call to be issued next April.

<table>
<thead>
<tr>
<th>Topic: Industry 4.0 (6 grants)</th>
<th>PhD Programmes</th>
<th>Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Management for Construction Projects 4.0</td>
<td>Management Engineering Arch, Built Env &amp; Constr Eng</td>
<td>Daniotti + Mancini</td>
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<tr>
<td>Cyberinfrastructures to use big data for scientific model development and validation</td>
<td>Information Technology Ind Chem &amp; Chem Eng</td>
<td>Pernici + Faravelli</td>
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<tr>
<td>Smart materials and metamaterials for Industry 4.0</td>
<td>Struct, Seism &amp; Geotech Eng Mechanical Engineering</td>
<td>Corigliano + Braghin</td>
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<tr>
<td>Virtual design of the product-process in additive manufacturing</td>
<td>Mechanical Engineering Aerospace Engineering</td>
<td>Semeraro + Sala</td>
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<tr>
<td>Real-time manufacturing systems monitoring by optical fiber sensor networks</td>
<td>Mechanical Engineering Information Technology</td>
<td>Giglio + Martinelli</td>
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<tr>
<td>Organic films in solid-liquid interfaces</td>
<td>Materials Engineering Physics</td>
<td>Castiglioni + Duò</td>
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**Topic: Smart Cities (5 grants)**

<table>
<thead>
<tr>
<th>Research Theme</th>
<th>PhD Programmes</th>
<th>Supervisors</th>
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</thead>
<tbody>
<tr>
<td>Reading, Planning and Managing Urban Dynamics through Big Data</td>
<td>Math Mod Meth in Engineering Arch, Urb &amp; Interior Design</td>
<td>Vantini + Fedeli</td>
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<tr>
<td>Human-vehicle interaction in autonomous connected cars</td>
<td>Information Technology Mechanical Engineering</td>
<td>Matteucci + Cheli</td>
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<tr>
<td>Distributed mini-ORC power systems for sustainable energy</td>
<td>Aerospace Engineering Energy and Nuclear Sci &amp; Techn</td>
<td>Guardone + Dossena</td>
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<tr>
<td>Impacts of novel technologies on urban and domestic life: Ethical and social issues</td>
<td>Design + Arch, Urb &amp; Interior Design</td>
<td>Volontè + Chiodo</td>
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<tr>
<td>Innovative System Control for sustainable and reliable micro-networks</td>
<td>Electrical Engineering Energy and Nuclear Sci &amp; Techn</td>
<td>Leva + Manzolini</td>
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**Topic: External Hazards (5 grants)**

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<tr>
<th>Research Theme</th>
<th>PhD Programmes</th>
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<tbody>
<tr>
<td>Thermo-Acoustic characterization of temporary constructions for emergencies</td>
<td>Arch, Built Env &amp; Constr Eng Energy and Nuclear Sci &amp; Techn</td>
<td>Zanelli + Mazzarella</td>
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<tr>
<td>Environmentally and publicly acceptable separation processes for limiting nuclear waste hazards</td>
<td>Ind Chem &amp; Chem Eng Energy and Nuclear Sci &amp; Techn</td>
<td>Mele + Mariani</td>
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<tr>
<td>Robust climate policies design under deep risk and uncertainty</td>
<td>Management Engineering Information Technology</td>
<td>Tavoni + Castelletti</td>
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<tr>
<td>Multi-scale Evaluation of Flood Hazards</td>
<td>Env &amp; Infrastr Engineering Urban Plann, Policy &amp; Design</td>
<td>Ballio + Menoni</td>
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<tr>
<td>Emerging Techniques for High-Idrogeological Risk Monitoring</td>
<td>Struct, Seism &amp; Geotech Eng Env &amp; Infrastr Engineering</td>
<td>Zanzi + Papini</td>
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**Topic: Health (3 grants)**

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<thead>
<tr>
<th>Research Theme</th>
<th>PhD Programmes</th>
<th>Supervisors</th>
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<tbody>
<tr>
<td>Frontier Physiopathology Research in Cell Biology</td>
<td>Bioengineering Physics</td>
<td>Raimondi + Cerullo</td>
</tr>
<tr>
<td>Multisensory multimodal interaction technology and design for people with Neurodevelopmental Disorder</td>
<td>Information Technology Design</td>
<td>Garzotto + Arquilla</td>
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<tr>
<td>Numerical model with radiological data for patient-specific atherosclerosis treatment</td>
<td>Math Mod Meth in Engineering Bioengineering</td>
<td>Vergara + Redaelli</td>
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**Topic: Cultural Heritage (2 grants)**

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<thead>
<tr>
<th>Research Theme</th>
<th>PhD Programmes</th>
<th>Supervisors</th>
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</thead>
<tbody>
<tr>
<td>Prevention for Cultural Heritage at Risk</td>
<td>Preserv Architect Heritage Arch, Built Env &amp; Constr Eng</td>
<td>Chesi + Della Torre</td>
</tr>
<tr>
<td>Semiconductor pigments in late XIX and early XX century paintings</td>
<td>Physics Materials Engineering</td>
<td>Valentini + Toniolo</td>
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Calls and events

Election of PhD representatives in the PhD School Board
On Wednesday, May 24th and Thursday, May 25th 2017 the PhD community will be called to elect their **four representatives** in the PhD School Board.
PhD representatives have a key role in addressing the PhD policies of Politecnico di Milano, as they have a significant presence in all the thematic committees of the Board, and participate both to the discussions and the votes on all the Board decisions, which affect all PhD programmes.
Furthermore, PhD representatives coordinate social events put forward by PhD candidates, which can be sponsored by the PhD School.
The deadline for candidacy submission is **Tuesday, April 11th at noon**. Don’t miss this opportunity!
Deadline for candidacy submission: April 11th 2017 at noon

Progetto Rocca
We would like to invite you to consider the new deadline for the call for “Rocca fellow” positions for a one semester stay at MIT.
The project aims at financing in particular researchers in the areas of materials science, mechanical engineering, bioengineering and life sciences, energy, electrical engineering and computer science. Projects that focus on buildings, infrastructure and planning will be considered only if they privilege mathematical and physical modeling and the novel use of materials.

The “Progetto Roberto Rocca” is a collaboration between MIT and Politecnico di Milano, funded by the Fondazione Fratelli Agostino and Enrico Rocca.
The initiative is meant to honour and remember the founder and late chairman of Techint Group, Roberto Rocca (1922-2003), an alumnus of both institutions (Master of Science in Mechanical Engineering, Politecnico di Milano, 1945; PhD in Metallurgical Sciences, MIT, 1950).

The Progetto Roberto Rocca aims at fostering academic exchanges and joint research, reinforcing existing collaborations between MIT and Politecnico and launching new ones.
The Project is focused on the “emergence of a new generation of talented researchers” and “the personal and professional networks”that will support long term MIT-Politecnico collaborations.

Therefore, you need to establish a contact together with your advisor with a research group at MIT that will be willing to host you.
Please note that applications are due **1st May —for the Fall Semester**. All documents must be submitted electronically to [progettorocca@polimi.it](mailto:progettorocca@polimi.it)

For more information: [http://mist.i.mit.edu/progetto-roberto-rocca](http://mist.i.mit.edu/progetto-roberto-rocca)
[http://mist.i.mit.edu/doctoral-mit](http://mist.i.mit.edu/doctoral-mit)

About “Rocca Fellows”community on facebook: [https://www.facebook.com/groups/roccafellows/](https://www.facebook.com/groups/roccafellows/)

For any enquiry please email to: [progettorocca@polimi.it](mailto:progettorocca@polimi.it)
Call deadline: 1st May 2017
CareerService - Placement PhD

The Career Service of the Politecnico di Milano, in cooperation with the PhD School, offers all final year PhD candidates the opportunity to enter a unique Placement Program that will help them to become active on the national and international job market. The program offers each PhD candidate the chance to identify the industry and the companies in line with his/her profile, to learn how to write an effective CV, to have an individual meeting with corporate managers able to give customized suggestions with the final aim of getting closer to finding an ideal career path. The Program offers also a mock interview to improve your self-confidence for a real interview job.

For further information and to access this program, please visit the page on the CareerService website “PhD Placement”

2017 PhD Call

In late April Politecnico di Milano will issue the call for PhD positions starting their career in November 2017, for candidates earning their second-level degree by October 31st, 2017. Access to Ph.D. Programmes is by selection. The University selection call is issued annually for all Ph.D. Programmes, and is viewable on the site http://www.dottorato.polimi.it/en/looking-for-a-phd/call-for-positions-and-scholarships/

All active PhD Programmes will offer positions in the call.

Deadline for application: May 26th 2017 at 2 PM (Italian time)

Good Health starts at the Table

The Unified Guarantee Committee which works to protect and safeguard the wellbeing of those who study and work, will be holding the conference ‘Good Health starts at the Table’ for students, PhD candidates and staff.

The Conference Speaker will be Prof. Anna Villarini from the Unità Complessa di Epidemiologia Eziologica e Prevenzione della Fondazione IRCCS Istituto Nazionale dei Tumori, Milan.

Registration at: https://www.eventi.polimi.it/events/la-salute-inizia-dalla-tavola/

Brochure (pdf)

April 10th, 2017 at 4.30 PM – Sala Auditorium, via Pascoli 53 Milano

The world at Polimi: Algeria

Within the cycle the world at Polimi, the second event organized by Algerian students on April 7th from 12h00 to 14h00 at Castigliano room (Building 5, Piazza Leonardo da Vinci, 32).

The culture of Algeria encompasses literature, music, cuisine and other facets of the Algerian lifestyle. Algerian population is a mix of Berbers with some additional elements from Arabs, Turks, Sub-Saharan Africans, and Andalusians.

Algerian culture is rich, varied and very ancient: each region, each city or oasis constitutes a particular cultural space.

The event will be a kind of spatiotemporal trip to Algeria by presenting the following:

- Art and photography (culture, cities, people) of different regions of the country.
- Literature (books, novels, and illustrations of the most famous authors).
- Popular cuisine.

Registration at:
https://www.eventi.polimi.it/events/the-world-at-polimi-algeria/

Next appointments:
https://www.eventi.polimi.it/rassegna-evento/the-world-at-polimi

April 7th, 2017 - from 12h00 to 14h00 at Castiglano room (Building 5, Piazza Leonardo da Vinci, 32)
IDEA League Summer Schools

The Politecnico di Milano PhD School will be soon issuing the call for participation at the IDEA League Summer Schools.

The IDEA League is a focused network of leading European universities of Science and Technology. Its members are TU Delft, RWTH Aachen, ETH Zurich, Chalmers University and Politecnico di Milano. The League offers the students of the network the unique opportunity to develop new insights into current research, and to enhance their skills and academic excellence. Together with their peers from the partner universities, students are encouraged to form a network beyond the programme, possibly using the IDEA League student grant as a follow-up to the summer school to do a research exchange.

There are no registration and accommodation fees. Students selected to participate in a summer school only have to pay for their own travel costs.

The following Summer Schools accept applications from PhD candidates:

- **Sustainable Production Systems: Shaping cross-company innovation**
  Organized by Chalmers University of Technology at Gothenburg (Sweden) and Frankfurt (Germany), Aug 21st – Sept 1st, 2017.
  See [https://sirop.org/app/10b7ca15-587f-4322-9fc4-6b28a5ab3749](https://sirop.org/app/10b7ca15-587f-4322-9fc4-6b28a5ab3749)

- **Heritage and the Global Challenges**
  Organized by Politecnico di Milano at Mantua (Italy), Sept 11th – Sept 15th, 2017.
  See [https://sirop.org/app/6868f6d2-3224-4043-a1f4-f82e1d093d5a](https://sirop.org/app/6868f6d2-3224-4043-a1f4-f82e1d093d5a)


Deadline for applications: April 21st, 2017

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International PhD Summer School 2017 on Transport, Infrastructure and Logistics

TU Delft organizes a Summer School for PhD Candidates.

The topic is Infrastructure, Transport & Logistics.

Deadline for applications: 1st May, 2017

August 28th – September 1st, 2017 - Delft University of Technology, the Netherlands

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The Lives of Others - Polimi International Film Festival, 3rd edition

The Lives of Others

directed by Florian Henckel Von Donnersmark

with Ulrich Mühe, Martina Gedeck, Sebastian Koch, Ulrich Tukur.

GERMANY, 2006 – running time 136 minutes

Original language with English subtitles.

Free event. To participate, please register at: [https://www.eventi.polimi.it/events/the-lives-of-others-le-vite-degli-altri-polimi-international-film-festival/](https://www.eventi.polimi.it/events/the-lives-of-others-le-vite-degli-altri-polimi-international-film-festival/)

April 5th, 2017 - 5.30pm - De Donato conference room, Building 3
Seminars

DISCOVER A COMMON ASSET: THE "PUBLIC HOUSING" - A RESEARCH ON THE RESIDENTIAL HERITAGE OF THE CITY OF MILAN

For organizational reasons it asking to subscribe by sending an email to: mantonietta.breda@polimi.it

Brochure (pdf)

5th April, 2017 – 10.00-12:30 (Open Space - Building 14 (Ship) level -1)

MODELLAZIONE DI LEGHE IN NICHEL-TITANIO: EFFETTO MEMORIA DI FORMA, PSEUDOELASTICITÀ E DISPOSITIVI

Prof.ssa Lorenza Petrini

The seminar belongs to the cycle of conferences organized by the Scientific Committee – Dept. of Civil and Environmental Engineering.

7th April, 12:15 (Aula Beltrami, Building 5 – ground floor)

Starting courses – Doctoral Programmes

PhD in Structural Seismic and Geotechnical Engineering

EXPERIMENTAL METHODS IN MATERIAL AND STRUCTURAL MECHANICS

Prof. Roberto Felicetti, Prof. Alfredo Cigada

The course aims at discussing the variety of issues to be tackled whilst designing experimental tests on material and structures.

27th April, 09:30 – 12:00 (Aula Beltrami, Building 5 – ground floor)

28th April, 09:30 – 12:30 (Aula Azzurra, Building 5 – second floor)