

November 2017



Stefano Paolo Corgnati

PROFILE

Stefano Paolo Corgnati, graduated with honors in Mechanical Engineering and Ph.D in Energetics, is Full Professor at the Energy Department of the Politecnico di Torino, where he teaches building physics, energy systems in buildings and sustainable building design, mainly in the courses of Architecture and Energy Engineering.

At present, he is Vice-Rector for Research at Politecnico di Torino; moreover, he is member of the Administrative Board and of the Academic Senate of the Politecnico di Torino.

He is President of Rehva (European Federation of HVAC Associations); from 2011 he was Rehva Vice-President and member of Rehva Board of Directors, where in 2014 he was nominated Treasurer.

He was member of the Directive Board of AICARR (Italian Association of Air Conditioning) from 2008 to 2011 and AICARR delegate for relations with Rehva.

He works in the TEBE research group (www.polito.it/tebe) focusing on energy&buildings and indoor environmental control. He is actively involved in the Socrates/Erasmus teaching mobility EU program, establishing continuous activity with Danish Technical University of Copenhagen, Aalborg University, Istanbul Technical University, University of Coimbra (Portugal) and ETSAB of Barcellona.

He is the author of more than 300 scientific, technical and didactic publications, mainly concerning: radiant panels technologies, objective and subjective assessment of indoor environmental comfort, building energy certification, influence of occupant behavior on building energy consumption and cost-optimal design of zero energy buildings. For the quality of his research activity, he won in 2009 the Rehva “Young Scientist Award”. Moreover, in 2011 he was nominated “Rehva Fellow”.

He is involved in a number of National, European and International Research Projects on building energy consumptions. Within the projects of the International Energy Agency (IEA), he is subtask leader of ECBCS - Annex 53 “Total Energy Use in Buildings” and co-subtask leader of ECBCS - Annex 59 “High Temperature Cooling & Low Temperature Heating in Buildings”. He is chair of the REHVA Task Force on “Indoor Climate Quality Assessment” and editor of the Rehva

Guidebook on this topic; he is also chair of the REHVA Task Force on “Reference Buildings for energy performance and cost optimal calculations” and co-chair on “Nearly Zero Energy Building in Mediterranean Climate and South Europe”.

He was the co-director and then director of the Research Competence Centre for “Indoor Environment and Energy Management” of Telecom at Politecnico di Torino.

He is the co-chair of LAME (Energy Modeling and Analyses Lab) of the Dep. of Energy of Politecnico di Torino.

From November 2014, he is member of the Executive Committee of the Energy Centre of Torino.

From 2008 to 2010, he was member of the Editorial Board of the Journal “CDA” (Condizionamento dell’Aria, Air Conditioning) and of the following “AICARR Journal”, official journals of AICARR.

He is Associate Editor of Rehva Journal and member of the Editorial Board of Building and Environment.

In 2009 and 2010, he was coordinator of the working group of Politecnico di Torino aimed at supporting Piedmont Region for the implementation and application of Building Energy Certification.

Detailed CV

Academic Field (formally named in Italian " <i>Settore Concorsuale</i> ")	09/C2 - Thermal Sciences, Energy Technology and Building Physics and Nuclear Engineering
Academic Discipline (formally named in Italian " <i>Settore Scientifico Disciplinare</i> "), if specified in the Decree of the Rector	ING-IND/11 - Building physics and building energy systems
Internal Code	Internal code 03/16/P/O
Department	Energy

CURRICULUM VITAE

SURNAME AND NAME	Stefano Paolo Corgnati
Home Address	Viale XXIV Maggio, 9
Phone number	+39.011.0904509
Fax number	+38.011.0904499
E-mail address	stefano.corgnati@polito.it
Nationality	Italian
Birth date	01.03.1973

Italian National Scientific Qualifications awarded for Full Professor positions ("*Abilitazioni Scientifiche Nazionali di I fascia*")

Academic Field (" <i>Settore Concorsuale</i> ")
09/C2 - Thermal Sciences, Energy Technology and Building Physics and Nuclear Engineering

Academic Position (if the candidate holds a position in a University)

Qualification/Title	Full Professor
University	Politecnico di Torino
Department	Energy
Academic Field (if the candidate holds a position in an Italian University, she/he should insert the " <i>Settore Concorsuale</i> ")	09/C2 - Thermal Sciences, Energy Technology and Building Physics and Nuclear Engineering
Academic Discipline (formally named " <i>Settore Scientifico Disciplinare</i> ", only for candidates who hold a position in an Italian University)	ING-IND/11 - Building physics and building energy systems

Working experience (please use the following table in order to briefly describe the working positions covered by the candidate)

Dates (from .. to..)	From May 2002 to April 2003
Name and address of the Employer (Public or/and private institution/body)	COREP (COnsorzio per la Ricerca e l'Educazione Permanente) of Politecnico di Torino, C.so Duca degli Abruzzi 24 (Torino, Italy)
Position held (for positions in Universities, the candidate should indicate the Faculty/College/School and the Department; in case of Italian Universities the candidate is also requested to indicate the "Settore Scientifico Disciplinare")	Coordinator of the "Indoor Climate Quality Assessment" Group
Main activities/responsibilities	Research on thermal comfort and indoor air quality. In field activity aimed at verifying and improving ventilation air flow rate, indoor air quality and thermal comfort in offices and service buildings along highway A32 and in T4 from Turin to Bardonecchia

Dates (from .. to..)	From May 2003 to December 2003
Name and address of the Employer (Public or/and private institution/body)	SiTI, Superior Institute of Politecnico di Torino, C.so Duca degli Abruzzi 24 (Torino, Italy)
Position held (for positions in Universities, the candidate should indicate the Faculty/College/School and the Department; in case of Italian Universities the candidate is also requested to indicate the "Settore Scientifico Disciplinare")	Coordination of the "Building Energy Performance" Group
Main activities/responsibilities	Research on energy retrofit of buildings. In field activity aimed at investigating cost-benefit solutions for energy retrofit of social housing multi-family residential buildings.

Dates (from .. to..)	From January 2004 to December 2009
Name and address of the Employer (Public or/and private institution/body)	Politecnico di Torino, C.so Duca degli Abruzzi 24 (Torino, Italy)
Position held (for positions in Universities, the candidate should indicate the Faculty/College/School and the Department; in case of Italian Universities the candidate is also requested to indicate the "Settore Scientifico Disciplinare")	Assistant Professor Academic discipline: ING-IND/11 - Building physics and building energy systems Department of Energy
Main activities/responsibilities	Researches on building physics, with specific focus on high efficient HVAC systems in buildings, building energy performance assessment, indoor climate quality. Teaching activity in courses related to building physics and building energy design.

Dates (from .. to..)	From January 2011 to December 2016
-----------------------	------------------------------------

Name and address of the Employer (Public or/and private institution/body)	Politecnico di Torino, C.so Duca degli Abruzzi 24 (Torino, Italy)
Position held (for positions in Universities, the candidate should indicate the Faculty/College/School and the Department; in case of Italian Universities the candidate is also requested to indicate the "Settore Scientifico Disciplinare")	Associate Professor Academic discipline: ING-IND/11 - Building physics and building energy systems Department of Energy
Main activities/responsibilities	Coordination of TEBE research sub-units (www.polito.it/TEBE) focusing on high energy performing buildings, indoor environmental quality in buildings, smart and conscious energy uses in buildings. Teaching activity in courses related to building physics and building sustainable design.

Dates (from .. to..)	From December 2016 to (present)
Name and address of the Employer (Public or/and private institution/body)	Politecnico di Torino, C.so Duca degli Abruzzi 24 (Torino, Italy)
Position held (for positions in Universities, the candidate should indicate the Faculty/College/School and the Department; in case of Italian Universities the candidate is also requested to indicate the "Settore Scientifico Disciplinare")	Full Professor Academic discipline: ING-IND/11 - Building physics and building energy systems Department of Energy
Main activities/responsibilities	Coordination of TEBE research sub-units (www.polito.it/TEBE) focusing on high energy performing buildings; Co-coordination of LAME research group focusing on energy planning; member of the executive committee of Energy Centre at PoliTO. Teaching activity in courses related to building energy design and building physics.

Education and Training (please use the following table to describe Degrees awarded, by only indicating the information concerning Bachelor's Degree, Master of Science's Degree or/and PhD)

Date	July 1998
Institution which issued the degree	Politecnico di Torino, II Faculty of Engineering
Type of Degree awarded (only Bachelor's Degree, Master of Science's Degree, PhD)	Master of Science's Degree in Mechanical Engineering (specializing sector: Energy): full marks with honors, 110/110 cum laude. Title of the thesis: A calculation method to design cooling radiant ceilings

Date	April 2002
Institution which issued the degree	Politecnico di Torino

Type of Degree awarded (only Bachelor's Degree,
Master of Science's Degree, PhD)

Ph.D. in Energetics

Title of the thesis: Heat flows and air distribution in
rooms cooled by radiant panels

FIELD #2

2. Coordination of research and technology transfer groups and projects.

- *Coordination and management of research groups, possibly with international relationships and collaborations; explicit mention of the number and of the type of PhD and Post-Doc students, of whom the candidate has been the academic supervisor*

PART 1 - Coordination and management of research groups, possibly with international relationships and collaborations; [...]

at Politecnico di Torino

A – IEEM Group

Chair with role of coordination and management of the Sub-Unit "Indoor Environment and Energy Modeling" (IEEM) of TEBE research group at the Department of Energy (see www.tebe.polito.it). At present, the main topics of research are Zero Energy Buildings, Indoor Environmental Quality and Users Energy Engagement.

The research units has stable international cooperation with:

- Danish Technical University (Denmark),
- Istanbul Technical University (Turkey)
- Coimbra University (Portugal)
- Lawrence Berkeley National Laboratory (California, US)
- Joint Research Centre DG-Energy (Ispra, Italy)
- University of Cambridge (UK).

Steady and fruitful exchange of Master and Ph.D. students are set-up with these partner Universities (see, in PART 2 of the present section, the list of Ph.D. student of whom the candidate was and still is academic supervisor).

The group is nowadays formed by 4 Post-Doc (Cristina Becchio, Valentina Fabi, Michela Rota and Fiorella Lauro), 4 PhD-students (Simona D'Oca, Tiziana Buso, Chiara Delmastro, Verena Bertelmes), 3 grant junior researchers (Giorgia Spigliantini, Cinzia Bello, Dell'Anna Federico), plus a number of master-students developing their master thesis in the key research topics of the unit. In the last 3 years, guest-PhD students spent a research period from 4 up to 12 months within IEEM group:

- Luísa Dias Pereira, PhD candidate at University of Coimbra - SES - MIT Portugal Program
- Michala Balounová, PhD candidate at Check Technical University in Prague
- Jana Kmet'ková, PhD candidate at the Slovak University of Technology in Bratislava
- Nese Ganic, PhD candidate at Istanbul Technical University
- Touraj Ashrafian, PhD candidate at Istanbul Technical University

(see the attached document "23_ANNEX_[...].pdf")

B – LAME Group

Co-chair with role of coordination and management of LAME (Laboratorio di Analisi e Modellazione Energetica, Laboratory of Energy Analysis and Modeling) research group at the Department of Energy (see [www. www.polito.it/lame](http://www.polito.it/lame)).

The main topic of research is to develop models and scenarios for energy planning and for energy systems analysis, at different scale from urban up to inter-continental. In LAME, the candidate is specifically responsible of the research activity related to the development of advanced input

models for urban planning and supervisor of the Ph.D. candidate Chiara Delmastro focusing on this topic.

The research group has stable national and international cooperation with:

- International Energy Agency (Paris, France),
- Joint Research Centre DG-Energy (Ispra, Italy)
- ENEA (Casaccia, Italy)

(see the attached document "19_ANNEX_[...].pdf")

at International level

1. from 2010 to 2013, SubTask-C Leader of IEA-ECBCS project "Annex 53 - Total Energy Use in Buildings: Analysis and Evaluation Methods"

(see the attached document "7_ANNEX_[...].pdf")

2. from 2009 to 2012, Chair of Rehva Task-Force on "Indoor Climatic Control"; the Task-Force developed Rehva Guide Book n. 14 titled "Indoor Climatic Control"

(see the attached document "11_ANNEX_[...].pdf")

3. from 2011 to 2014 Chair of the Rehva Task-Force on "Reference buildings for energy performance and cost-optimal analyses"

(see the attached document "9a_ANNEX_[...].pdf")

4. from 2012 to 2015, SubTask-A Co-Leader of IEA-EBC project "Annex 59 - High Temperature Cooling & Low Temperature Heating in Buildings".

(see the attached document "8_ANNEX_[...].pdf")

5. from 2014 (to: ongoing activity) Co-Chair of the Rehva Task-Force on "Design Principles for Nearly Zero Energy Buildings in Mediterranean Region"; in connection with this TF, chair of the the Italian AICARR working group on "Best Practices towards nZEB in Italy"

(see the attached document "9b_ANNEX_[...].pdf")

PART 2 - [...]; explicit mention of the number and of the type of PhD and Post-Doc students, of whom the candidate has been the academic supervisor;

Supervisor or Co-Supervisor of Ph.D. Students

The candidate was and is supervisor (or co-supervisor) at both Politecnico di Torino and other European Universities: with these Universities, stable research cooperation is established and enforced thanks to the Ph.D. activity. For the Ph.D. students of Politecnico di Torino, it is also put the information about the Universities/research centres where the Ph.D. candidate spent his/her period abroad.

2005-2007

1. Ph.D. Student: Roberta Ansaldi; Research Topic: Indoor Environmental Quality Certification; University: Politecnico di Torino

2006-2008

2. Ph.D. Student: Andrea Kindinis; Research Topic: Thermal storage strategies in buildings; University: Politecnico di Torino
3. Ph.D. Student: Federica Ariaudo; Research Topic: Monitoring and operational rating of energy performance in buildings; University: Politecnico di Torino

2007-2010

4. Ph.D. Student: Francesco Causone; Research Topic: Radiant Systems for heating and cooling; University: Politecnico di Torino (*research period abroad at Danish Technical University*)

2009-2011

5. Ph.D. Student: Daniela Raimondo; Research Topic: Connection between energy consumptions and indoor climate quality in buildings; University: Politecnico di Torino (*research period abroad at Danish Technical University*)

2009-2012

6. Ph.D. Student: Cristina Becchio; Topic: Energy and Economy Issues in Sustainable Buildings; University: Politecnico di Torino

2009 – 20015

7. Ph.D. Student: Marco Massetti; Research Topic: Energy simulations at different stage of the building design; University: La Salle in Barcellona

2010-2013

8. Ph.D. Student: Valentina Fabi; Research Topic: Influence of occupant behavior on total energy use in buildings; University: Politecnico di Torino (*research period abroad at Danish Technical University*)

2013 - 2016

9. Ph.D. Student: Simona D'Oca; Research Topic: Modeling occupant behavior for buildings energy simulations; University: Politecnico di Torino (*research period abroad at LBNL in Berkeley*)
10. Ph.D. Student: Touraj Ashrafiyan Bonab; Research Topic: Reference Building for Cost Effective Level of Existing Buildings Energy Efficient Retrofit; University: Istanbul Technical University (*research period abroad at Politecnico di Torino*)
11. Ph.D. Student: Fiorella Lauro; Research Topic: Advanced models for real time energy diagnostic in buildings; University: Roma 3

2014 - (on going)

12. Ph.D. Student: Tiziana Buso; Research Topic: Energy and Economic Analysis of Nearly Zero Energy Hotels; University: Politecnico di Torino (*research period abroad at Istanbul Technical University and at University of Cambridge*)
13. Ph.D. Student: Neşe GANIÇ; Research Topic: Cost Optimal Energy Retrofit in Turkish Residential Buildings; University: Istanbul Technical University (*research period abroad at Politecnico di Torino*)
14. Ph.D. Student: Gözde GALÍ; Research Topic: Innovative Façade for Low Energy Multifunctional Buildings in Turkey; University: Istanbul Technical University

2015 - (on going)

15. Ph.D. Student: Chiara Delmastro; Research Topic: Energy Planning towards Post Carbon Cities; University: Politecnico di Torino (*research period abroad at IEA headquarter in Paris*)

2016- (on going)

16. Verena Berthelmes, Research Topic: Modeling energy related occupants' behavior; University: Politecnico di Torino (*research period abroad at University of Cambridge*)

Note to the following lists

In the three lists presented below, the Post-Doc and the Post-M.Sc. students that the candidate supervised, basically from 2009 when he started a more independent activity (see also the profile of publications in international journal and the contracts), are shown. The high number of students, in addition to the Ph.D. candidates, demonstrate how much it is important for the candidate the creation and growing of a stable and solid research group to give continuity to the research lines. In this picture, also the so-called "granted junior Post-Master Sc. Students" play a crucial role: after a M.Sc. thesis when they demonstrate their potentialities in researches, they can start a research path to check their attitude to the research and, if positive, enter the competition for a Ph.D. position.

Supervisor of Post-Doc Students

1. Causone Francesco, Ph.D. – Period with Post-Doc Grant: 2009, 2010 and 2011
2. Alfonso Capozzoli, Ph.D. – Period with Post-Doc Grant: 2010 and 2011
3. Valentina Fabi, Ph.D. – Period with Post-Doc Grant: 2014, 2015 and 2016 (on-going)
4. Cristina Becchio, Ph.D. – Period with Post-Doc Grant: 2014, 2015 and 2016 (on-going)
5. Valentina Monetti, Ph.D. – Period with Post-Doc Grant: 2014, 2015 and ended 2016
6. Daniela Raimondo, Ph.D. – Period with Post-Doc Grant: 2014, 2015 and ended 2016
7. Fiorella Lauro, Ph.D. – Period with Post-Doc Grant: 2016
8. Rota Michela - Period with Post-Doc Grant: 2016

Supervisor of granted senior Post-Master Sc. Students (1 year grant, "Assegno di Ricerca")

1. Talà Novella – Period with M.Sc. Grant: 2012 and 2013
2. Cristina Becchio – Period with M.Sc. Grant: 2012 and 2013
3. Daniela Raimondo – Period with M.Sc. Grant: 2012 and 2013
4. Valentina Fabi – Period with M.Sc. Grant: 2013
5. Bazzoni Paola – Period with M.Sc. Grant: 2014
6. Cesario Gian Luca – Period with M.Sc. Grant: 2014
7. Fraire Stefano – Period with M.Sc. Grant: 2014 and 2015
8. Sirombo Elisa - Period with M.Sc. Grant: 2014 and 2015

Supervisor of granted junior Post-Master Sc. Students (3-6 months grant, "Borsa di Ricerca")

1. Quaranta Silvia – period from 03/03/2014 to 03/06/2014
2. Camisassi Vittoria - period from 03/03/2014 to 03/09/2014 and from 18/09/2014 to 18/12/2014
3. Guala Cecilia - period from 03/03/2014 to 03/09/2014, from 18/09/2014 to 18/03/2015 and from 09/06/2015 to 09/10/2015
4. Bassu Anna – period from 09/06/2014 to 09/12/2014
5. Cesario Gian Luca - period from 08/05/2014 to 08/06/2014 and from 23/05/2015 to 05/05/2016
6. Maggiora Giulia - period from 01/12/2014 to 01/03/2015