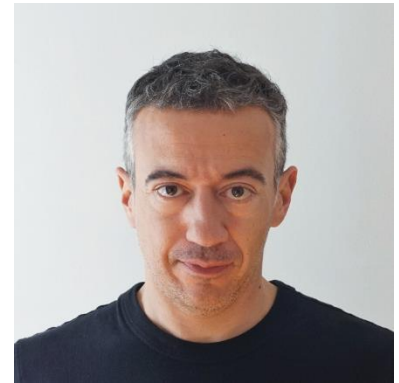




**Europass  
Curriculum Vitae  
February 2019**



**Personal information**

First name(s) / Surname(s) **Konstantinos Gkoumas**

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Web Researcher ID C-9395-2009 (<http://orcid.org/0000-0003-3833-6223>)  
Academia.edu <http://jrc.academia.edu/KonstantinosGkoumas>  
Personal web site: [www.gkoumas.eu](http://www.gkoumas.eu)

Nationality Greek

Date of birth 20.06.1974

Gender Male

**Desired employment/  
Occupational field**

Research/Academy/R&D/Administration and Policy

**Education**

Dates 2004-2008

Title of qualification awarded **PhD in Transportation and Infrastructures**

Principal subjects/occupational skills covered Thesis Title: "*Real time control of public transit*". Conception and implementation of a public transit line simulation model for the investigation of real time control strategies. Advisor: Prof. Giuseppe Bellei

Name and type of organisation providing education and training Sapienza University of Rome, Italy

Level in national or international classification *Dottorato di ricerca in Infrastrutture e Trasporti*

Dates 1995-2003

Title of qualification awarded **Laurea in Civil Engineering** (5-year degree, equivalent with MEng + MSc)

Principal subjects/occupational skills covered Thesis Title: "*Tecniche e tecnologie di monitoraggio per sistemi strutturali complessi, con particolare riferimento al caso di ponti*" (in Italian). Theoretical conception of a modern structural monitoring system for a long span bridge, accounting also for the serviceability performance of the structural system by means of finite element modelling analysis. Advisor: Prof.-Ing. Franco Bontempi

Name and type of organisation providing education and training Sapienza University of Rome, Rome, Italy

Level in national or international classification *Laurea di Dottore in Ingegneria Civile* (vecchio ordinamento ante D.M. 509/1999)

## Scientific activity

- Research periods abroad
- Visiting Researcher (May 2012, 4 weeks), The Linear and Nonlinear Dynamics and Vibrations Laboratory (LNDVL), **University of Illinois at Urbana-Champaign**, U.S.A. (Professors Lawrence A. Bergman and Alexander Vakakis)
  - Visiting Researcher (November 2010, 4 weeks), Center of Structural Monitoring and Control, **Harbin Institute of Technology**, P.R.C. (Prof. Hui Li)
  - Visiting Researcher (November 2009 - March 2010), Institute of Applied Mathematics of the **Georg-August-Universität Göttingen**, Germany (Prof. Anita Schoebel)
- Conference Organizer and Chairman
- **Organizer and Chairman:** 5th International Workshop on Design in Civil and Environmental Engineering (**DCEE 2016**), Rome, 6-8 October 2016. Chairs: Dr. Konstantinos Gkoumas, Prof. Franco Bontempi ([www.dcee2016.eu](http://www.dcee2016.eu)).
- Session Organizer and Chairman in International Conferences
- **Organizer and Chairman:** Special Session - *Progressive Collapse and Structural Robustness: An International Perspective*. Chairs: Dr. Konstantinos Gkoumas, Prof. Clay Naito, **ASCE/SEI Structures Congress**, Pittsburgh, Pennsylvania, May 2-4, 2013.
  - **Organizer and Chairman:** Special Session - *Energy harvesting in Bridges and Transportation Infrastructure Networks*, 6th International Conference on Bridge Maintenance, Safety and Management (**IABMAS 2012**), Stresa, Lake Maggiore, Italy, July 8-12, 2012
  - **Organizer and Chairman:** Special Session - *Case studies in planning and operations*, **24th European Conference on Operational Research**, Lisbon, Portugal, July 11-14, 2010, on the stream "Public Transport" organised by Prof. Anita Schoebel and Prof. Leo Kroon
- Chairman in International Conferences
- Session **Chairman** at the 4th International Workshop on Design in Civil and Environmental Engineering (DCEE4), National Taiwan University, Taipei, Taiwan, October 30-31, 2015
  - **Chairman** of the Session: *Dangerous Details, Safety and Reliability* organised by P.G. Malerba, ASEM13, the 2013 World Congress on Advances in Structural Engineering and Mechanics International Convention Center Jeju, Jeju, Korea, September 8-12, 2013
  - **Chairman** of the Session *Performance-Based, Reliability-Based, and Risk-Based Design: Rational approaches to mitigate natural and man-made hazards*, 11<sup>th</sup> International Conference on Structural Safety & Reliability, June 16-20, 2013 Columbia University New York, NY
  - **Chairman** of the Session *Offshore Wind Turbine Design*, 12<sup>th</sup> International Conference on Engineering, Science, Construction, and Operations in Challenging Environments (Earth and Space), Honolulu (HI), March 14-17, 2010
- Conference organization
- Member of the International Advisory Committee, 6th International Workshop on Design in Civil and Environmental Engineering (DCEE 2017), Cagliari, 9-11 November 2017
  - Member of the Organizing Committee, The Spaghetti Problem - Parametric Design using Rhino, Grasshopper and Karamba, Sapienza University of Rome and DTU Workshop, Rome, April 30, 2016
  - Member of the Organizing Committee, IF CRASC '15 "*III Convegno di Ingegneria Forense & VI Convegno su CRolli, Affidabilità Strutturale, Consolidamento*", Sapienza University of Rome, Italy, May 14-16, 2015
  - Member of the Organizing Committee, Optimal lines on free-form surfaces – optimization and form-finding in structural design, Sapienza University of Rome and DTU workshop, Rome, April 11, 2015
  - Member of the National Organizing Committee, 6<sup>th</sup> International Conference on Bridge Maintenance, Safety and Management (IABMAS 2012), Stresa, Lake Maggiore, Italy, July 8-12, 2012
  - Member of the Local Organizing Committee, Workshop "Handling exceptions in structural engineering: structural systems, accidental scenarios, design complexity", Sapienza University of Rome, Italy, July 8-9, 2010

- Awards & Funding
- December 2013: ESA BIC Lazio (European Space Agency Business Incubator Center Lazio). Winner of a 50.000€ grant for the **ESA space technology transfer** with StroNGER S.r.l.
  - September 2012: Filas - Financing, innovation and research in Lazio. Winner of the fund "FILAS - POR FESR LAZIO 2007/2013 - Support for the research spin-off" for 100.000€, for the creation of a research spin-off (StroNGER S.r.l.)
  - September 2009: German Academic Exchange Service (Deutscher Akademischer Austausch Dienst - **DAAD**), 4-month scholarship for post-graduate research at the Institute of Applied Mathematics of the Georg-August-Universität Göttingen, Germany (Prof. Anita Schoebel)
  - May 2007: **WCTRS** (World Conference on Transport Research Society) fellowship for attending the 11th World Conference on Transport Research, University Berkeley, USA, June 24-28, 2007
- International journal referee
- Computer-Aided Civil and Infrastructure Engineering (Wiley)
  - Engineering Structures (Elsevier)
  - Public Transport (Springer)
  - Transportation research Part C (Elsevier)
  - Wind and Structures (Techno Press)
  - Journal of Civil Engineering and Management (Taylor and Francis)
  - Transactions on Intelligent Transportation Systems (IEEE)
  - European Journal of Environmental and Civil Engineering (Taylor & Francis)
  - Frattura ed Integrità Strutturale (open access)

## Work experience

Dates	April 2017 onwards
Occupation or position held	Programme Officer
Main activities and responsibilities	Development of the European Transport Research and Innovation Monitoring System (TRIMIS).
Name and address of employer	The European Commission's Joint Research Centre (JRC), Via Enrico Fermi 2749, I - 21027 Ispra (VA), Italia <a href="https://ec.europa.eu/jrc/en">https://ec.europa.eu/jrc/en</a> at the Sustainable Transport Unit
Type of business or sector	Research for policy
Dates	November 2012 – March 2017
Occupation or position held	Business Partner
Main activities and responsibilities	Research and development activity, with focus from March 2014 to May 2016 on the ESA funded project <i>piezoTsensor</i> ( <a href="http://www.piezotsensor.eu">www.piezotsensor.eu</a> )
Name and address of employer	StroNGER S.r.l - Via Giacomo Peroni 442-444, Tecnopolo Tiburtino, 00131 Roma (ITALY) <a href="http://www.stronger2012.com">www.stronger2012.com</a>
Type of business or sector	Research and development/Entrepreneurship
Dates	April 2010 – October 2011
Occupation or position held	Associate Researcher
Main activities and responsibilities	Research activity on fire safety engineering, offshore wind turbines and energy harvesting.
Name and address of employer	Sapienza University of Rome – Department of Structural and Geotechnical Engineering, Via Eudossiana 18, 00184, Rome, Italy
Type of business or sector	Research
Dates	November 2009 – March 2010
Occupation or position held	Postdoctoral Fellow, German Academic Exchange Service (DAAD)
Main activities and responsibilities	Implementation of the LinTim package ( <a href="http://lintim.math.uni-goettingen.de">http://lintim.math.uni-goettingen.de</a> ) for evaluating delay management strategies in public transportation, focusing on a low frequency dataset (adapted from the Athens Metro Network), and on testing delay strategies.
Name and address of employer	Institut für Numerische und Angewandte Mathematik, Universität Göttingen, Lotzestr. 16-18 D - 37083 Göttingen, Germany
Type of business or sector	Research

Dates January 2008 – October 2009  
Occupation or position held Associate Researcher  
Main activities and responsibilities Research on the structural safety and performance of Offshore Wind Turbines: numerical applications on a 5MW case study structure and comparison of different support structures.  
Research activity on the fire risk and safety assessment of civil engineer structures and infrastructures: applications on steel buildings and tunnels  
Name and address of employer Sapienza University of Rome – Department of Structural and Geotechnical Engineering, Via Eudossiana 18, 00184, Rome, Italy  
Type of business or sector Research

Dates July 2005 – November 2007  
Occupation or position held Civil Engineer / Employee - Part time (20+ h/week)  
Main activities and responsibilities Worked as an engineer on several projects. Selected assignments:  

- Highway geometric design of a long span bridge approach road
- Design of an industrial concrete pavement
- Technical/administrative inspection of a public infrastructure
- Development of a bridge maintenance plan
- F.E. modelling of a structure in R.C.

Name and address of employer Co.Re. Ingegneria S.r.l. Viale Parioli 50, 00197, Rome, ITALY (<http://www.coreingegneria.com>)  
Type of business or sector Engineering Design

Dates November 2004-December 2007  
Occupation or position held PhD Student  
Main activities and responsibilities Research on the real time control of public transport. Development of a stochastic simulation model of a transit line with traffic lights, that takes into account the inherent uncertainty of transit operation due to the random travel times and passenger arrivals at stops. Inquiry on the relations between transit assignment and operation models and between transit operation and dwell time models, by identifying some characteristics of the transit headway distributions.  
Name and address of employer Sapienza University of Rome – Department of Hydraulics, Transportation and Roads, Via Eudossiana 18, 00184, Rome, Italy  
Type of business or sector Research

Dates January 2004 – June 2005  
Occupation or position held Research Consultant / Associate Researcher  
Main activities and responsibilities Worked in a research team carrying out safety and serviceability analysis for the feasibility of a long span suspension bridge. Within this contest, the principal activity focused on the development of stochastic highway traffic loading models for long span bridges.  
Name and address of employer Sapienza University of Rome – Department of Structural and Geotechnical Engineering, Via Eudossiana 18, 00184, Rome, Italy  
Type of business or sector Research

## Personal skills and competences

Mother tongue(s) **Greek**

Other language(s)

Self-assessment

European level (\*)

**English**

**Italian**

**German**

### Understanding

### Speaking

### Writing

Listening Reading Spoken interaction Spoken production

C1 Proficient user C1 Proficient user C1 Proficient user C1 Proficient user C1 Proficient user

C1 Proficient user C1 Proficient user C1 Proficient user C1 Proficient user C1 Proficient user

A2 Basic user A2 Basic user A2 Basic user A2 Basic user A2 Basic user

(\*) Common European Framework of Reference for Languages

Social skills and competences	I have worked in different research teams under the guidance of different people.
Teaching skills and competences	I have worked in distinct phases as a teaching assistant for both undergraduate and graduate courses in structural design, transportation engineering and fire safety engineering. I have co-advised 5 Master Thesis. I have been member on several occasions of the examination committee for the <i>Laurea Magistrale Degree</i> in Civil and Transportation Engineering at the Sapienza University of Rome.
Organisational skills and competences	I have worked as a team member for the organisation of different conferences and workshops held in the Faculty of Engineering of the Sapienza University of Rome
Computer skills and competences	<ul style="list-style-type: none"> <li>- Advanced programmer (VBA, Matlab)</li> <li>- Advanced user and programmer of spreadsheet and database applications</li> <li>- Advanced user of SAP 2000 Integrated Software for Structural Analysis &amp; Design</li> <li>- Advanced user of HTML and Bootstrap web application tools</li> <li>- Good user of CAD Applications</li> <li>- Good user of the PIARC - OECD quantitative risk assessment model (GRAM) software</li> <li>- Good user of the TransCAD transportation planning software</li> <li>- Good user of Adobe Photoshop raster graphics editor, and Illustrator, vector graphics editor</li> <li>- Good user of the iTOL phylogenetic tree management tool</li> </ul>
Other skills and competences	Qualified as a safety coordinator for temporary works for construction and construction plants in Italy ( <i>Coordinatore per la sicurezza nei cantieri temporanei e mobili</i> , Art. 10 comma 2 D.Lgs. 494/96)
Driving licence	Category A-B

### Additional information

#### ADDITIONAL PROFESSIONAL AND ENTREPRENEURIAL ACTIVITY

04/2013-09/2015 Arbitrator for the “SeaWind: Performance Based Engineering of Off-Shore Wind Turbines”, funded from the call for proposals «Bilateral R&D Cooperation between Greece and China 2012-2014»

03/2014-06/2016 Principal entrepreneur with StroNGER S.r.l. for the ESA BIC Lazio (European Space Agency Business Incubator Center Lazio) project *piezoTsensor* ([www.piezotsensor.eu](http://www.piezotsensor.eu))

12/2012 Co-founder and Partner of the start-up company (Research Spin-off) StroNGER S.r.l - Via Giacomo Peroni 442-444, Tecnopolo Tiburtino, 00131 Roma (ITALY) [www.stronger2012.com](http://www.stronger2012.com)

1-6/2010 Consulting activity on transportation aspects regarding the preliminary design of a 10 km highway ring in northern Italy, for BF PROGETTI ENGINEERING s.r.l. and the autonomous province of Bolzano

#### PROFESSIONAL MEMBERSHIPS

- Engineering Chamber of Rome (Ordine degli Ingegneri della Provincia di Roma), CEng-Equivalent. Member since 07.2005 (ID A26184)
- Technical Chamber of Greece (TEE), CEng-Equivalent. Member since 03.2005 (ID 101946)

#### SCIENTIFIC MEMBERSHIPS

- International Association for Bridge Maintenance and Safety (IABMAS)
- International Association for Life-Cycle Civil Engineering (IALCCE)
- Association of Civil Engineers of Greece
- Hellenic Institute of Transportation Engineers
- Italian Society of Transportation Lecturers (SIDT), junior member

## Additional information (cont.)

### UNIVERSITY GROUP RESEARCH FUNDING

(In parenthesis: months of individual involvement, total project months, total grant)

- 2008 Ateneo federato della Scienza e della Tecnologia AST: Sicurezza ed affidabilità dei sistemi dell'ingegneria civile: il caso delle turbine eoliche offshore (University research grant: Safety and reliability of civil engineering systems: the case of offshore wind turbines) - (24, 24, 74.000€).
- 2007 Ateneo federato della Scienza e della Tecnologia AST: Scenari accidentali nei sistemi strutturali: il caso dell'incendio (University research grant: Accidental scenarios in structural systems: the case of fire) – (8, 12, 13.000€).
- 2006 Ateneo federato della Scienza e della Tecnologia AST: Approccio sistemico per il rischio nei sistemi strutturali (University research grant, System approach for the risk assessment of structural systems) – (6, 12, 19.500€).
- 2004 Finanziamento di Ricerca della Facoltà di Ingegneria: Modellazione ed analisi nel tempo delle capacità prestazionali dei sistemi strutturali (Faculty research grant: Structural systems performance modelling and assessment) – (3, 12, 19.500€).
- 2004 PRIN. "La progettazione prestazionale e l'affidabilità dei ponti di grande luce nell'impostazione dell'ingegneria dei sistemi" (Research of National Interest: Performance-based design of long span bridges in a System Engineering framework) – (8, 24, 62.900€).

### OTHER

- Evaluator for the Italian section of the German Academic Exchange Service (Deutscher Akademischer Austausch Dienst - DAAD) since 02/2016
- Currently in the EU recruitment list of EPSO/CAST/S/5/2013 Researcher (FG IV)

### PERSONAL INTERESTS

My hobbies include capoeira, alpine skiing, road cycling, windsurfing, Stand Up Paddling, scuba diving and photography

## Annexes Annex A: Publications

PhD Thesis

### Annex A: Publications

[T] Gkoumas, K. (2008). Real time control of public transit. DOI: 10.3267/GKOUMASTHESIS

Patents

[P] European Patent Application. *Device made of piezoelectric material having a fin for harvesting energy from air flows*. Date of publication: 09.12.2015 Bulletin 2015/50 Application number: 15170907.8 Date of filing: 05.06.2015 Applicant: StroNGER S.r.l. 00123 Roma (IT) Inventors: BONTEMPI, Franco I-39100 Bolzano (IT) CROSTI, Chiara I-05100 Terni (TR) (IT) GKOUMAS, Konstantinos I-00100 Roma (IT) PETRINI, Francesco I-00018 Palombara Sabina (RM) (IT) ARANGIO, Stefania I-00100 Roma (IT)

International journals

[J16] Gkoumas, K., Tsakalidis, A. (2019) "A framework for the taxonomy and assessment of new and emerging transport technologies and trends", *Transport*, Vol. 34, No. 1 (scheduled for publication)

[J15] Gkoumas, K., Bontempi, F. (2019) "Development of a piezoelectric energy harvesting sensor: from concept to reality", *Frattura ed Integrità Strutturale*, 47 (2019), 150-160.

[J14] Olmati, P., Gkoumas, K., Bontempi, F. (2019) "Simplified FEM modelling for the collapse assessment of a masonry vault", *Frattura ed Integrità Strutturale*, Vol. 47, pp. 141-149.

[J13] Petrini, F. Gkoumas, K. (2018) "Piezoelectric energy harvesting from vortex shedding and galloping induced vibrations inside HVAC ducts", *Energy and Buildings*, Vol. 158, pp. 371–383

[J12] Gkoumas, K., Di Santo, C., Bontempi, F. (2016) "Risk analysis for severe traffic accidents in long road tunnels", *International Journal of Forensic Engineering*, Vol. 3, No. 1-2, pp. 106-126

[J11] Milana, G., Olmati, P., Gkoumas, K., Bontempi, F. (2015) "Ultimate capacity of diagrid systems for tall buildings in the nominal configuration and the damaged state", *Periodica Polytechnica Civil Engineering*, Vol.59, No. 3, pp. 381 - 391

[J10] Olmati, P., Petrini, F., Gkoumas, K. (2014) "Fragility analysis for the Performance-Based Design of cladding wall panels subjected to blast load", *Engineering Structures*, Vol. 78, pp. 112-120

[J9] Sgambi, L., Gkoumas, K., Bontempi, F. (2014) "Genetic algorithm optimization of precast hollow core slabs", *Computers and Concrete*, Vol. 13, No. 3, pp. 389-409

[J8] Olmati, P., Gkoumas, K., Brando, F., Cao, L. (2013) "Consequence-based robustness assessment of a steel truss bridge", *Steel and Composite Structures, An International Journal*, Vol. 14, No. 4, pp. 379-395

[J7] Sgambi, L., Gkoumas, K., Bontempi, F. (2012) "Genetic Algorithms for the Dependability Assurance in the Design of a Long Span Suspension Bridge", *Computer-Aided Civil and Infrastructure Engineering* Vol. 27, No. 9, pp. 655–675

[J6] Gkoumas, K., Petrini, F., De Gaudenzi, O. (2012). "Energy harvesting applications in transportation infrastructure networks", *Procedia - Social and Behavioral Sciences* Vol. 48, pp. 1097–1107

[J5] Petrini, F., Gkoumas, K., Zhou, W. and Li, H. (2012) "Multi-level structural modeling of an offshore wind turbine", *Ocean Systems Engineering, An International Journal*, Vol.2, No.1, pp. 1-16

[J4] Bellei, G., Gkoumas, K. (2010). "Transit vehicles' headway distribution and service irregularity", *Public Transport*, Vol. 2, No 4, pp. 269-289

[J3] Petrini F., Manenti S., Gkoumas K., Bontempi F. (2010). "Structural design and analysis of offshore wind turbines from a system point of view", *Wind Engineering*, Vol. 34, No 1, pp. 85-108

[J2] Bellei, G., Gkoumas, K. (2009). "Threshold- and information-based holding at multiple stops", *IET Intelligent Transport Systems journal*, Vol. 3, No. 3, pp. 304-313.

[J1] Bontempi, F., Gkoumas, K., Arangio, S. (2008). "Systemic approach for the maintenance of complex structural systems", *Structure & Infrastructure Engineering - Maintenance, Management, Life-Cycle Design & Performance*, Vol. 4, No. 2, pp. 77-94

- International book chapters
- [B2] Gkoumas, K., Petrini, F., Bontempi, F. (2019). System approach to resilience-based design: political decisions and steps towards antifragility. In Springer Book Series [BK2- Urban Resilience: Methodologies, Tools and Evaluation]. Forthcoming.
- [B1] Gkoumas, K., Petrini, F., Bontempi, F. (2015). "Design of Cable-Supported Bridges, Control Strategies", Aseismic Design, Lignos. D. Section Editor, in Encyclopedia of Earthquake Engineering, Beer, M., Kougoumtzoglou, I.A., Patelli, E., Au, I.S.-K. (Eds.), pp. 536-550, Springer
- Italian book chapters
- [I1] Bellei, G., Gkoumas, K. (2006). *Una funzione di distribuzione degli arrivi dei veicoli di trasporto collettivo che tiene conto del "pairing"* (in Italian), in: P. Ferrari e E.M., Cepolina, eds., *Didattica e ricerca nell'ingegneria dei trasporti*, Milano, Franco Angeli, pp. 92-99
- International conference proceedings  
(\*indicates personally presented)
- [C53] Tsakalidis, A., Gkoumas, K., Pekar, F., Grosso, M., Haq, G. A., Marelli, L. Towards an integrated European platform for monitoring and analysing transport research and innovation (TRIMIS), Transport Research Arena 2018 (TRA 2018), Vienna 16-19 April 2018
- [C52] Gkoumas, K., Petrini, F., Bontempi, F. Piezoelectric vibration energy harvesting from airflow in HVAC (Heating Ventilation and Air Conditioning) systems, EURO DYN 2017: the 10th International Conference on Structural Dynamics, Rome 10-13 September 2017
- [C51\*] Gkoumas, K., Petrini, F., Arangio, S., Crosti, C., Bontempi, F. "Development of a piezoelectric energy harvesting sensor: from concept to reality", 5th International Workshop on Design in Civil and Environmental Engineering, Sapienza University of Rome, Italy, October 6-8, 2016
- [C50\*] Bontempi, F., Gkoumas, K., Arangio, S., Petrini, F., Crosti, C. "The long way towards a sound framework for structural design: 10 years of experience in Rome", 4th International Workshop on Design in Civil and Environmental Engineering, National Taiwan University, Taipei, Taiwan, October 30-31, 2015
- [C49\*] Gkoumas, K., Petrini, F., Bontempi, F. "Design for robustness, resilience and anti-fragility in the built and urban environment: considerations from a civil engineering point of view", 4th International Workshop on Design in Civil and Environmental Engineering, National Taiwan University, Taipei, Taiwan, October 30-31, 2015
- [C48] Milana, G., Gkoumas, K., Bontempi, F. "Sustainability Concepts in the Design of High-Rise buildings: the case of Diagrid Systems", Proceedings of the 3rd International Workshop on Design in Civil and Environmental Engineering, Technical University of Denmark, Denmark, August 21-23, 2014 Lotte Bjerregaard Jensen & Mary Kathryn Thompson Editors, pp. 170-179, ISBN 978-0-9894658-3-0
- [C47] Ferri, S., Gkoumas, K., Petrini, F. and Bontempi, F. "Flow-induced energy harvesting: conceptual design and numerical analyses of a piezoelectric bender for smart building applications", Proceedings of the 3rd International Workshop on Design in Civil and Environmental Engineering, Technical University of Denmark, Denmark, August 21-23, 2014 Lotte Bjerregaard Jensen & Mary Kathryn Thompson Editors, pp. 146-156, ISBN 978-0-9894658-3-0
- [C46\*] Crosti, C., Gkoumas, K., Bontempi, F. "Forensic investigation of the collapse of a metal truss structure", ASEM13 The 2013 World Congress on Advances in Structural Engineering and Mechanics International Convention Center Jeju, Jeju, Korea, 8 – 12 September, 2013
- [C45\*] Olmati, P., Gkoumas, K., Bontempi, F. "Alteration of the stability domain of masonry arc structures", ASEM13 The 2013 World Congress on Advances in Structural Engineering and Mechanics International Convention Center Jeju, Jeju, Korea, 8 – 12 September, 2013
- [C44] Gkoumas, K., Petrini, F., Arangio, S., Crosti, C. "Energy harvesting for the sustainability of structures and infrastructures", The Fifth International Conference on Structural Engineering, Mechanics and Computation (SEMC 2013), September 2-4, Cape Town, South Africa
- [C43\*] Olmati, P., Gkoumas, K. "Blast resistance assessment of a reinforced precast concrete wall under uncertainty", 11th International Conference on Structural Safety & Reliability, June 16-20, 2013 Columbia University New York, NY



- [C42\*] Petrini, F., Gkoumas, K., Bontempi, F. "Damage and Loss evaluation in the Performance Based Wind Engineering", 11th International Conference on Structural Safety & Reliability, June 16-20, 2013 Columbia University New York, NY
- [C41\*] Petrini, F., Gkoumas, K., Bontempi, F. "Recent developments and uncertainty aspects in the performance based design of structures for wind", 4th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, June 12-14, Kos Island, Greece
- [C40] Olmati, P., Brando, F., Gkoumas, K. "Robustness assessment of a Steel Truss Bridge", ASCE/SEI Structures Congress, Pittsburgh, Pennsylvania, May 2-4, 2013
- [C39\*] Gkoumas, K., Petrini, F., Bontempi, F. (2012). "Energy harvesting for the life cycle of structures and infrastructures: state of art, recent trends and future developments", 3rd International Symposium on Life-Cycle Civil Engineering (IALCCE 2012), Vienna, Hofburg Palace, Austria, October 3-6
- [C38\*] Petrini, F., De Gaudenzi, O., Gkoumas, K. "An energy harvesting application in a long span suspension bridge", 3rd International Symposium on Life-Cycle Civil Engineering (IALCCE 2012), Vienna, Hofburg Palace, Austria, October 3-6
- [C37\*] Gkoumas, K. (2012). "Energy harvesting in bridges and transportation infrastructure networks: state of art, recent trends and future developments", IABMAS 2012 - The 6th International Conference on Bridge Maintenance, Safety and Management, Stresa, Lake Maggiore, Italy, July 8-12
- [C36] Brando, F., Cao, L., Olmati, P., Gkoumas, K. (2012). "Consequence-based robustness assessment of bridge structures", IABMAS 2012 - The 6th International Conference on Bridge Maintenance, Safety and Management, Stresa, Lake Maggiore, Italy, July 8-12
- [C35\*] Petrini, F., Gkoumas, K., De Gaudenzi, O. (2012). "Wind energy harvesting in civil engineering systems", Joint Conference of the Engineering Mechanics Institute and 11th ASCE Joint Specialty Conference on Probabilistic Mechanics and Structural Reliability (EMI/PMC 2012), Notre Dame, USA, June 17-20
- [C34] Petrini, F., Gkoumas, K., De Gaudenzi, O., Bontempi, F. (2012). "Performance-based wind engineering and uncertainty propagation in the design of offshore wind turbines", Joint Conference of the Engineering Mechanics Institute and 11th ASCE Joint Specialty Conference on Probabilistic Mechanics and Structural Reliability (EMI/PMC 2012), Notre Dame, USA, June 17-20
- [C33\*] De Gaudenzi, O., Petrini, F., Gkoumas, K., Bontempi, F. (2012). "Energy harvesting and vibration damping on wind turbines", MEMSCON Workshop Towards Intelligent Civil Infrastructure, Athenian Capitol Mall, Athens, Greece Thursday, March 29
- [C32\*] Gkoumas, K., Petrini, F., Bontempi, F. (2011). "Framework and issues for the structural evaluation of tunnels under fire", Proceedings of the First World Congress on Advances in Structural Engineering and Mechanics (ASEM'11plus), Seoul, Korea, September 18-22
- [C31\*] Petrini, F., Gkoumas, K., Zhou, W., Li, H. (2011). "Multi-level structural modeling of an offshore wind turbine", Proceedings of the First World Congress on Advances in Structural Engineering and Mechanics (ASEM'11plus), Seoul, Korea, September 18-22
- [C30] Petrini, F., Gkoumas, K. (2011). "Computational Modelling for Performance Based Fire Engineering (PBF)", Proceedings of the Application of Structural Fire Engineering (ASFE) Conference, Prague, Czech Republic, April 29
- [C29\*] Gkoumas, K. (2010). "Measures for tunnel fire safety", Proceedings of the 4th International Conference on Structural Engineering, Mechanics and Computation (SEMC), Cape Town, South Africa, September 6-8
- [C28\*] Gentili, F., Crosti, C., Gkoumas, K. (2010). "Fire safety assessment of long tunnels", Proceedings of the 4th International Conference on Structural Engineering, Mechanics and Computation (SEMC), Cape Town, South Africa, September 6-8
- [C27\*] Gkoumas, K., Schachtebeck, M., Schoebel, A. (2010). "Public transport service reliability in high- and low frequency systems", Proceedings of the 24th European Conference on Operational Research (Book of Abstracts), Lisbon, Portugal, July 11-14

- International conference proceedings (cont.)
- [C26\*] Gkoumas, K. (2010). "Special Aspects of Offshore Wind Turbine Design", Workshop Handling Exceptions in Structural Engineering: *Sistemi Strutturali, Scenari Accidentali, Complessità di Progetto*, Rome (Italy), July 8-9
- [C25\*] Gkoumas, K. (2010). "A Risk Analysis Framework for Offshore Wind Turbines", Proceedings of the 12th International Conference on Engineering, Science, Construction, and Operations in Challenging Environments (Earth and Space), Honolulu (HI), USA, March 14-17
- [C24\*] Rotisciani, V., Miliziano, S., Bontempi, F., Gkoumas, K. (2010). "Planning of an Offshore Wind Farm in the Mediterranean Sea", Proceedings of the 12th International Conference on Engineering, Science, Construction, and Operations in Challenging Environments (Earth and Space), Honolulu (HI), USA, March 14-17
- [C23\*] Bellei, G., Gkoumas, K. (2009). "Integrated public transit priority strategies", Proceedings of the 11th International Conference on Advanced Systems for Public Transport (CASPT), Hong Kong, July 20-22
- [C22\*] Gkoumas, K., Bellei, G. (2009). "Effectiveness of control strategies for transit line operation", Proceedings of the 23rd European Conference on Operational Research, Bonn, Germany, July 5-8
- [C21] Bellei, G., Gkoumas, K. (2009). "Schedule and headway based control of transit lines", Proceedings of the International Conference on "Models and Technologies for Intelligent Transportation Systems", Rome, Italy, June 22-23
- [C20] Bontempi, F., Gkoumas, K., Manenti, S., Petrini F. (2009). "Basis of design for offshore wind turbines", Proceedings of the OWEMES 2009 Conference, Brindisi, Italy, May 21-23
- [C19\*] Gkoumas, K., Crosti, C., Giuliani, L., Bontempi, F. (2009). "Definition and selection of design fire scenarios", Proceedings of the Application of Structural Fire Engineering (ASFE) Conference, Prague, Czech Republic, February 19-20
- [C18\*] Crosti, C., Giuliani, L., Gkoumas, K., Bontempi, F. (2009). "Structural analysis of steel structures under fire loading", Proceedings of the Application of Structural Fire Engineering (ASFE) Conference, Prague, Czech Republic, February 19-20
- [C17\*] Gkoumas, K. (2008). "Basic aspects of risk-analysis for civil engineering structures", Workshop Handling Exceptions in Structural Engineering: *Robustezza Strutturale, Scenari Accidentali, Complessità di Progetto*, Rome (Italy), November 13-14
- [C16\*] Gkoumas, K., Crosti, C., Bontempi, F. (2008). "Risk Analysis and Modelling Techniques for Structural Fire Safety", Proceedings of the 9th Int. Conf. on Computational Structures Technology, Athens, Greece, September 2-5
- [C15\*] Gkoumas, K., Petrini, F., Manenti, S., Bontempi F. (2008). "Offshore Wind Turbines: Basis of Structural Design", Proceedings of the 9th Int. Conf. on Computational Structures Technology, Athens, Greece, September 2-5
- [C14\*] Arangio, S., Gkoumas, K., Bontempi, F. (2008). "Slow and High Speed Structural Monitoring of Suspension Bridges", Proceedings of the 4th International ASRANet Colloquium, Athens, Greece, June 25-27
- [C13\*] Giuliani, L., Gkoumas, K., Bontempi, F. (2008). "Robustness Assessment of a Long Span Suspension Bridge in Presence of Different Contingency Scenarios", Proceedings of the 4th International ASRANet Colloquium, Athens, Greece, June 25-27
- [C12\*] Bellei, G., Gkoumas, K. (2008). "Public transit conditional priority and information based holding", Proceedings of the 10th International Conference on Application of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, May 27-31
- [C11] Bontempi, F., Li, H., Petrini, F., Gkoumas, K., (2008). "Basis of Design of Offshore Wind Turbines by System Decomposition", Proceedings of the Fourth International Conference on Advances in Structural Engineering and Mechanics (ASEM'08), Jeju, Korea, May 26-28

- International conference proceedings (cont.)
- [C10] Bontempi, F., Giuliani, L., Gkoumas, K. (2007). "Handling the exceptions: dependability of systems and structural robustness", Invited Lecture, Proceedings of the 3rd Int. Conf. on Structural Engineering, Mechanics and Computation (SEMC), Cape Town, South Africa, September 10-12
- [C9] Bontempi, F., Giuliani, L., Gkoumas, K. (2007). "Handling the exceptions: robustness assessment of a complex structural system", Invited Lecture, Proceedings of the 3rd Int. Conf. on Structural Engineering, Mechanics and Computation (SEMC), Cape Town, South Africa, September 10-12
- [C8\*] Bellei, G., Gkoumas, K. (2007). "Priority and Holding Strategies to improve Transit Performance", Proceedings of the 11th World Conference on Transportation Research, Berkeley (CA), USA, June 24-28
- [C7\*] Giuliani, L., Gkoumas, K., Bontempi, F. (2007). "Nonlinear dynamic analysis for the dependability of complex structural systems", Proceedings of the ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Eng. (COMPdyn 2007), Rethymno, Greece, June 13-16
- [C6\*] Bellei, G., Gkoumas, K. (2006). "Pairing, headway distributions and dwell time", Proceedings of the 10th International Conference on Computer-Aided Scheduling of Public Transport (CASPT), Leeds, UK, June 21-23
- [C5\*] Gkoumas, K. (2005). "Requirements and main aspects of an intelligent Monitoring System for Long Span Bridges", Proceedings of the 10th Int. Conf. on Civil, Structural and Environmental Engineering Computing, Rome, Italy, August 28- September 2
- [C4\*] Bontempi, F., Gkoumas, K., Righetti, G. (2005). "Conceptual aspects and considerations for the Risk Analysis of Complex Structural Systems such as long suspension bridges", Proceedings of the 10th Int. Conf. on Structural Safety and Reliability (ICOSSAR), Rome, Italy, June 19-23
- [C3] Bontempi, F., Gkoumas, K., Arangio, S. (2005). "System Engineering framework for the knowledge-based analysis of complex structural systems", Proceedings of the 10th Int. Conf. on Structural Safety and Reliability (ICOSSAR), Rome, Italy, June 19-23
- [C2\*] Bontempi, F., Gkoumas, K. (2005). "The design process of complex structural systems with regard to the dependability", Proceedings (Short Paper) of the 3rd M.I.T. Conference on Computational Fluid and Solid Mechanics, Boston (MA), USA, June 14-17
- [C1] Giuliano, F., Petrini, F. and Gkoumas, K. (2005). "Load scenarios and serviceability tests for the Messina Strait Bridge and Time-History Simulations", Proceedings (Short Paper) of the 3rd M.I.T. Conference on Computational Fluid and Solid Mechanics, Boston (MA), USA, June 14-17
- National conference Proceedings (\*indicates personally presented)
- [N19] Biscarini, G., Petrini, F., Gkoumas, K., Bontempi, F. "Piezoelectric EH from flow-induced structural vibrations", IN-VENTO 2016 XIV Conference of the Italian Association for Wind Engineering 25-28 September 2016, Terni, Italy
- [N18\*] Di Santo, C., Gkoumas, K., Bontempi, F. "Analisi del Rischio per la Sicurezza nelle Gallerie Stradali", Valutazione e Gestione Del Rischio negli Insediamenti Civili ed Industriali (VGR 2016) Istituto Superiore Antincendi, Roma, 20-22 settembre 2016 (poster presentation)
- [N17\*] Gkoumas, K. "Il comportamento umano da comparsa a protagonista: modellazione dell'evacuazione di un capannone industriale", Valutazione e Gestione Del Rischio negli Insediamenti Civili ed Industriali (VGR 2016) Istituto Superiore Antincendi, Roma, 20-22 settembre 2016
- [N16] Arangio, S., Bontempi, F., Crosti, C., Gkoumas, K., Petrini, F. "S.I.V.E.S.: Schede Informatizzate per la valutazione della Vulnerabilit  degli Edifici Storici ai fenomeni geologici e idrogeologici", 5° IAGIG - Incontro Annuale dei Giovani Ingegneri - Roma, 22-23 maggio 2015
- [N15] Di Santo, C., Gkoumas, K. "Risk analysis for severe traffic accidents in road tunnels (Part II)", Ingegneria Forense, Crolli, Affidabilit  Strutturale e Consolidamento. Atti del Convegno IF CRASC '15 - 14/16 maggio 2015, Roma, Nicola Augenti & Franco Bontempi (ed), Dario Flaccovio Editore, pp. 959-969, ISBN 9788857904474
- [N14] Di Santo, C., Gkoumas, K., Bontempi, F. "Risk analysis for severe traffic accidents in road tunnels (Part I)", Ingegneria Forense, Crolli, Affidabilit  Strutturale e Consolidamento. Atti del

- National conference Proceedings (cont.)
- Convegno IF CRASC '15 - 14/16 maggio 2015, Roma, Nicola Augenti & Franco Bontempi (ed), Dario Flaccovio Editore, pp. 971-979, ISBN 9788857904474
- [N13] Olmati, P., Gkoumas, K. "Simplified FEM Modelling for the Collapse Assessment of a Masonry Vault", *Ingegneria Forense, Crolli, Affidabilità Strutturale e Consolidamento. Atti del Convegno IF CRASC '15 - 14/16 maggio 2015, Roma, Nicola Augenti & Franco Bontempi (ed), Dario Flaccovio Editore, pp. 651-660, ISBN 9788857904474*
- [N12] Milana, G., Olmati, P., Gkoumas, K. "Scenario Based Structural Robustness Assessment of Tall Diagrid Structures", *Ingegneria Forense, Crolli, Affidabilità Strutturale e Consolidamento. Atti del Convegno IF CRASC '15 - 14/16 maggio 2015, Roma, Nicola Augenti & Franco Bontempi (ed), Dario Flaccovio Editore, pp. 525-532, ISBN 9788857904474*
- [N11\*] Milana, G., Olmati, P., Gkoumas, K., Bontempi, F. Structural Behavior and Robustness Assessment of Tall Buildings: the case of Diagrid Systems. 8th Hellenic National Conference of Steel Structures, Tripoli (Greece), 2 - 4 October 2014
- [N10] Petrini, F., Gkoumas, K., Bontempi, F. Piezoelectric Energy Harvesting under Air Flow Excitation. IN-VENTO 2014, XIII Conference of the Italian Association for Wind Engineering, Genova (Italy), 22-25 June 2014
- [N9] Milana, G. and Gkoumas, K. (2013). "Considerazioni sulla robustezza strutturale di grattacieli sostenibili: il caso delle strutture diagrid", *Proceedings of the XXIV CONVEGNO C.T.A. XXIV Giornate Italiane della Costruzione in acciaio, Torino, September 30 – October 2*
- [N8\*] Gkoumas, K., Li, H., Zhou, W., Petrini, F. and Bontempi, F. (2011). "Multi-Level FEM Modelling of Offshore Wind Turbines accounting for the Environment Uncertainty", *7th National Conference on Steel Structures, September 29 - October 1, Volos (Greece), pp. 288-301*
- [N7\*] Gkoumas, K., Giuliani, L., Petrini, F. and Gentili, F. (2011). "Fire Safety Assessment of Tunnel Structures", *7th National Conference on Steel Structures, September 29 - October 1, Volos (Greece), pp. 528-535 (Vol. 2)*
- [N6\*] Gkoumas, K., Crosti, C., Bontempi, F. (2008). "Risk analysis based structural design for fire safety", *Proceedings of the 6th National Conference on Metal Structures, Ioannina (Greece), October 2-4*
- [N5\*] Bontempi, F., Petrini, F., Gkoumas, K., Manenti, S. (2008). "Basis of structural design and numerical modelling of offshore wind turbines", *Proceedings of the 6th National Conference on Metal Structures, Ioannina (Greece), October 2-4*
- [N4] Bellei, G., Gkoumas, K. (2008). "Un modello dell'esercizio per linee di trasporto collettivo parzialmente sovrapposte", In: *Interventi e metodologie di progetto per una mobilità sostenibile, Extended Abstracts, Guido. G & Mazzulla, G. (Eds). Proceedings of the XV Convegno Nazionale Società Italiana dei Docenti di Trasporti, Rende (Italy), Università della Calabria, June 9-10, pp. 179-183*
- [N3] Bontempi F., Gkoumas K., Manenti S. (2008). "Basi del progetto di turbine eoliche offshore". *X Convegno Nazionale di Ingegneria del Vento IN-VENTO 2008, 8-11 giugno, Scopello (Italy)*
- [N2\*] Gkoumas, K. (2008). "Un modello di esercizio per la gestione in tempo reale del trasporto collettivo", In: *Metodi e modelli per l'ingegneria dei trasporti nelle scuole di dottorato. SIDT Giovani Padova 3-4 aprile 2008, Padova University Press. ISBN 978-88-903541-4-4*
- [N1] Loreti, S., Gkoumas, K. (2004). "Tecniche e tecnologie per la progettazione del sistema di monitoraggio di strutture complesse", *Proceedings of the Giornate AICAP, 23° Convegno Nazionale "Migliorare le costruzioni di calcestruzzo strutturale: l'esistente ed il nuovo", Verona (Italy), May 26-29*
- Policy inputs and technical reports
- [P7] Gkoumas, K., Marques Dos Santos, F.L., van Balen, M., Tsakalidis, A., Ortega Hortelano, A., Grosso, M., Haq, G., Pekár, F., *Research and innovation in bridge maintenance, inspection and monitoring - A European perspective based on the Transport Research and Innovation Monitoring and Information System (TRIMIS), EUR 29650 EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-79-99678-8, doi:10.2760/16174, JRC115319.*

- Policy inputs and technical reports (cont.)
- [P6] van Balen, M., Grosso, M., Tsakalidis, A., Gkoumas, K., Haq, G., Ortega Horelano, A. and Pekar, F., Research and innovation capacity in smart mobility and services: An assessment based on the Transport Research and Innovation Monitoring and Information System (TRIMIS), EUR 29445 EN, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-97263-8, doi:10.2760/793107, JRC113784
- [P5] Gkoumas, K., Tsakalidis, A., van Balen, M., Grosso, M., Haq, G., Ortega Hortelano, A. and Pekar, F., Inventory, modelling and assessment of New and Emerging Technologies and Trends (NETT) in the transport sector: A methodology for the Transport Research and Innovation Monitoring and Information System (TRIMIS), EUR 29428 EN, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-9-97224-9, doi:10.2760/552646, JRC113797
- [P4] Grosso, M., van Balen, M., Tsakalidis, A., Ortega Hortelano, A., Haq, G., Gkoumas, K., and Pekar, F., Assessing innovation capacity in the European transport sector - A methodological framework for a macro-level financial and socio-economic analysis, EUR 29415 EN, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-96852-5, doi:10.2760/88784, JRC113633
- [P3] Tsakalidis, A., van Balen, M., Gkoumas, K., Grosso, M., Haq, G., and Pekar, F. Towards an integrated monitoring and assessment framework for the Strategic Transport Research and Innovation Agenda: Using TRIMIS as a policy support mechanism EUR 29314 EN, Publications Office of the European Union, Luxembourg, 2018c, ISBN 978-92-79-92582-5, doi: 10.2760/872205, JRC112360
- [P2] van Balen, M., Grosso, M., Tsakalidis, A., Gkoumas, K., Haq, G. and Pekar, F. 2018. Research and innovation capacity in cooperative, connected and automated transport - An assessment based on the Transport Research and Innovation Monitoring and Information System (TRIMIS). EUR 29307 EN, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-91187-3, doi:10.2760/62004, JRC112357
- [P1] Tsakalidis, A., Gkoumas, K., Pekar, F., Grosso, M., Haq, G. and Marelli, L., EU Transport Research & Innovation Status Assessment Report 2017: An overview based on the Transport Research and Innovation Monitoring and Information System (TRIMIS) database, EUR 29032 EN, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-77357-0, doi:10.2760/331714, JRC109784
- Invited seminars
- [A4] Gkoumas, K. "Performance-based design of offshore wind turbines and feasibility of wind energy harvesting in civil structures", Dynamics Interest Group Seminars, Deere Pavilion, **University of Illinois at Urbana-Champaign**, June 8, 2012. Host: Professors Larry Bergman and Alex Vakakis
- [A3] Gkoumas, K. "Wind Energy: Performance-Based Design of Offshore Wind Turbines and Energy Harvesting Applications", **Lehigh University** ATLSS/CEE Seminar May 9 2012, 3pm Room B101 ATLSS Center. Host: Professor Clay Naito
- [A2] Gkoumas, K. "Special Aspects of Offshore Wind Turbine Structural Design", Center of Structural Monitoring and Control of the **Harbin Institute of Technology**, Room: 402, School of Civil Engineering, December 1 2010. Host: Professor Hui Li
- [A1] Gkoumas, K. "Vehicle holding and conditional priority strategies in public transit operations", weekly meeting for PhD students and researchers at the Institute for Numerical and Applied Mathematics, **University of Göttingen**, November 24, 2009. Host: Professor Anita Schöbel
- Other seminars
- [S1] Gkoumas, K. "Sustainability of tall buildings: structural design and intelligent technologies", *Ciclo degli assegnisti di ricerca, Dipartimento di Ingegneria Strutturale e Geotecnica*, Faculty of Architecture "Valle Giulia", **Sapienza University of Rome**, July 11 2014

## Annexes Annex B: Thesis advising

### Annex B: Thesis advising

[L5] **"The human behavior from «bit player» to «key player»: fire and evacuation simulation in an industrial building"**. "Laurea Magistrale" (M.Sc.) Thesis at the Sapienza University of Rome, Faculty of Civil and Industrial Engineering. Candidate: Monica Capobelli. Final grade: **110/110**. Advisor: Prof. Franco Bontempi, co-advisors: Chiara Crosti, PhD, Konstantinos Gkoumas, PhD. Defended in January 2016

[L4] **"Risk analysis for severe traffic accidents in road tunnels"**. "Laurea Magistrale" (M.Sc.) Thesis at the Sapienza University of Rome, Faculty of Civil and Industrial Engineering. Candidate: Carmine Di Santo. Final grade: **110/110 "Summa cum Laude"**. Advisor: Prof. Franco Bontempi, co-advisor: Konstantinos Gkoumas, PhD. Defended in January 2015

[L3] **"Sustainability Concepts in the Design of High-Rise buildings: the case of Diagrid Systems"**. "Laurea Magistrale" (M.Sc.) Thesis at the Sapienza University of Rome, Faculty of Civil and Industrial Engineering. Candidate: Giulia Milana. Final grade: **110/110 "Summa cum Laude"**. Advisor: Prof. Franco Bontempi, co-advisor: Konstantinos Gkoumas, PhD. Defended in March 2014

[L2] **"Flow-Induced Energy Harvesting for Smart Buildings: Conceptual Design of an Innovative Piezoelectric Bender"**. "Laurea Magistrale" (M.Sc.) Thesis at the Sapienza University of Rome, Faculty of Civil and Industrial Engineering. Candidate: Sara Ferri. Final grade: **110/110 "Summa cum Laude"**. Advisor: Prof. Franco Bontempi, co-advisor: Konstantinos Gkoumas, PhD. Defended in March 2014

[L1] **"Energy Harvesting in Civil Structures under Wind Action: Application of Piezoelectric Devices"**. "Laurea Specialistica" (M.Sc.) Thesis at the Sapienza University of Rome, Faculty of Civil and Industrial Engineering. Candidate: Oriana De Gaudenzi. Final grade: **110/110**. Advisor: Prof. Franco Bontempi, co-advisors: Konstantinos Gkoumas, PhD, Francesco Petrini, PhD. Defended in July 2011

## Annexes Annex C: Teaching activity

### Annex C: Teaching activity

Politecnico di Milano

A.Y. 2017-'18

- 40h teaching activity on bridge structural design for the "Bridge Theory and Design" module, 2<sup>nd</sup> year, *Laurea Magistrale* degree in Civil Engineering. Professor Pier Giorgio Malerba.

Sapienza University of Rome

A.Y. 2013-'14, 2014-'15 and 2015-'16

- 4h teaching activity on fire risk analysis and tunnel fire safety for the "Fire Safety Structural Design" module (60 hours/6 ECTS credits, 2<sup>nd</sup> year, *Laurea Magistrale* degree in Safety Engineering and Civil Protection - Instructor Prof. Franco Bontempi)
- 6h teaching activity on structural robustness, sustainability and BIM for the "Steel Structures" module (60 hours/6 ECTS credits, 2<sup>nd</sup> year, *Laurea Magistrale* degree in Civil Engineering - Instructor Prof. Franco Bontempi)

A.Y. 2013-'14 and 2014-'15

- 2h teaching activity on Diagrid Structures for the "Introduction to structural optimisation" 40h module for the 2<sup>nd</sup> year of the PH.D. program in Structural Engineering - Instructor Prof. Franco Bontempi)

A.Y. 2006-'07

- Teaching assistant for the "**Public Transport Design**" module (60 hours/6 ECTS credits, 1<sup>st</sup> year, *Laurea Magistrale* degree in Transportation Engineering - Instructor Prof. Giuseppe Bellei). Taught in total 20h on public transit control and assisted in the oral exams

A.Y. 2005-'06 and 2006-'07.

- Teaching assistant for the "**Structural Design 1**" module (60 hours/6 ECTS credits, 3<sup>rd</sup> year, *Laurea* degree in Civil Engineering - Instructor Prof. Remo Calzona). The course focuses on the design of simple (two story) structures in steel. Assigned and helped project groups and assisted in the oral exams
- Teaching assistant for the "**Structural Design 2**" module (60 hours/6 ECTS credits, 1<sup>st</sup> year, *Laurea Magistrale* degree in Civil Engineering - Instructor Prof. Remo Calzona). The course focuses on the design of complex structures in Reinforced Concrete (RC) or Prestressed RC (e.g. bridges). Assigned and helped project groups and assisted in the oral exams

## Annexes **Annex D: Participation in workshops and training**

### **Annex D: Selected workshops and training**

[W10] JRC Workshop on Future Wind technologies, 5 December 2017, Ispra, Italy.

[W9] 15th JRC Annual Training on Composite Indicators & Scoreboards. 6-8 November 2017, Ispra, Italy.

[W8] CEN and CENELEC Railways for the Future workshop. Cleaner Transport Stakeholder Workshop. 25 October, Brussels, Belgium.

[W7] DG MOVE/Transport Research and Innovation Portal (TRIP) Transport Safety Stakeholder Workshop. 28 June 2017, Brussels, Belgium.

[W6] DG MOVE/Transport Research and Innovation Portal (TRIP) Cleaner Transport Stakeholder Workshop. 3 May 2017, Brussels, Belgium.

[W5] EU Brokerage Event - KETs Call 2016-2017: Focus on Key Enabling Technologies – nanotechnologies, advanced materials, advanced manufacturing and processing, on May 12th 2016 in Mainz, Germany.

[W4] Energy Harvesting and Storage Europe – Applications, Technologies, Opportunities. Conference and Exhibition. 27-28 April 2016, Berlin, Germany.

[W3] ESA Bic Appathon: Observe and Learn - Support Environmental Protection. 48h Application development competition. ITech via Giacomo Peroni 442/444 (Tecnopolo Tiburtino) 00131 Roma. Networking event. 24 & 25 January 2015

[W2] Share or die. *L'importanza di essere BIC*. Networking event. ITech via Giacomo Peroni 442/444 (Tecnopolo Tiburtino) 00131 Roma. July 26 2014

[W1] ESA Investment Readiness Programme (IRP) Lazio, on in Rome, IRP program leader: Rick Salmon. Two-day investment readiness training event. ITech via Giacomo Peroni 442/444 (Tecnopolo Tiburtino) 00131 Roma. 5 & 6 June 2014