



PUBLIC SELECTION ESTABLISHED WITH DIRECTOR'S DECREE NO. 2019_PRA_DMEC_3 OF 29/05/2019 PURSUANT TO THE NOTICE PUBLISHED IN THE OFFICIAL GAZETTE NO. 28/06/2019, n.51 FOR 1 POSITION AS ASSOCIATE PROFESSOR FOR THE COMPETITION SECTOR 09/A2 - APPLIED MECHANICS - SDS ING-IND/13 - APPLIED MECHANICS, PURSUANT TO ART. 18 - LAW 240/2010, AT THE POLITECNICO DI MILANO - DEPARTMENT OF MECHANICAL ENGINEERING (PROCEDURE CODE 2019_PRA_DMEC_3).

FINAL REPORT

The Selection Board, appointed with RD Index No. 5778 ref. No. 135749 of 31 July 2019, composed by the following Professors:

Prof. PENNACCHI Paolo Emilio Lino Maria - Politecnico di Milano;
Prof. VIADERO-RUEDA Fernando - Universidad de Cantabria;
Prof. LIEBICH Robert - Technische Universität Berlin,

met on 17th October 2019 at 11:35, for the first teleconference meeting.
Each Board member was connected from his/her workstation.

At the start of the session the members of the Selection Board named the Chairman and the Secretary of the Board:

PAOLO EMILIO LINO MARIA PENNACCHI, FULL PROFESSOR at the Politecnico di Milano, Chairman;
ROBERT LIEBICH, FULL PROFESSOR AT THE UNIVERSITY TU BERLIN, SECRETARY.

Each member of the Board declared not to have conjugal nor family relationship or other degree of kinship or affinity up to the fourth degree, not to be in same-sex civil union (as per art. 1 of Law No. 76 of 20.05.2016) and not to form a cohabiting couple (as per art. 1, paragraphs 37 et seq. of Law No. 76 of 20.05.2016) with the other members of this Board and that there were no reasons for abstention pursuant to arts. 51 and 52 of the Civil Procedure Code.

The members of the Selection Board and the Secretary declared, pursuant to art. 35-bis of Legislative Decree 165/2001, not to have criminal convictions, even with non-definitive sentences, for offences provided for in Chapter I, Title II of the second book of the Criminal Code.

The Board fixed the criteria and the parameters according to which the assessment was carried out, and established the minimum score below which the candidate shall not be included on the ranking of candidates.

On 5th November 2019 at 10:00, the Selection Board met in teleconference to inspect the list of applicants, who were:

1) RIPAMONTI Francesco

Each member of the Board declared not to have conjugal nor family relationship or other degree of kinship or affinity up to the fourth degree, not to be in same-sex civil union (as per art. 1 of Law No. 76 of 20.05.2016) and not to form a cohabiting couple (as per art. 1, paragraphs 37 et seq. of Law No. 76 of 20.05.2016) with the candidates and stated that there were no reasons for abstention pursuant to arts. 51 and 52 of the Civil Procedure Code.

Pursuant to the examination and after adequate evaluation, the Board assigned a score to each of the established criteria and a judgment to each publication submitted by the candidate; furthermore, the Board evaluated the knowledge of the foreign language.

Therefore the Board, considering the sum of the scores given, expressed a collective judgment in relation to the quantity and the quality of publications, evaluating the overall productivity of the applicant, also with regard to his/her period of activity..

The above-mentioned judgments are attached to this report and they are an integral part of it (Attachment No. 1 to this final report).

The Board drew up, according to the majority of its members, a ranking of candidates selected to carry out the scientific/teaching functions for which the selection was called, in a number equal to a maximum of five times the number of positions available in the competition (Attachment No. 2 to this final report).

THE BOARD

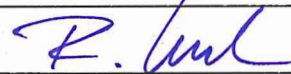
Prof. PENNACCHI Paolo Emilio Lino Maria (Chairman)

Firmato digitalmente ai sensi del CAD – D. Lgs 82/2005 e s.m.i.

Prof. VIADERO-RUEDA Fernando (Member)

Firmato digitalmente ai sensi del CAD – D. Lgs 82/2005 e s.m.i.

Prof. LIEBICH Robert Andreas (Secretary)





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ATTACHMENT No. 1 to the FINAL REPORT

CRITERIA	Quality of scientific and/or project production, assessed on the basis of criteria and parameters recognized by the international scientific community of reference	Teaching activity at the university level in Italy or abroad	Scientific responsibility for funded research projects	Results obtained in technology transfer in terms of participation in the creation of new enterprises (spin off), development, use and marketing of patents	Total
RIPAMONTI Francesco	21,54	23	25	7	76.54

CANDIDATE: RIPAMONTI Francesco

CURRICULUM:

From the curriculum vitae presented, the candidate Francesco RIPAMONTI obtained his degree in Mechanical Engineering in 2002 at the Politecnico di Milano and the Ph.D. in 2006 at the Politecnico di Milano.

He had the internship at Department of Mechanical Engineering from June 2006 to May 2007 and then was employed in the technical role (level D) at Department of Mechanical Engineering of Politecnico di Milano. He obtained the national scientific qualification for associate professor on 6th April 2017.

The candidate did his scientific activity with continuity, at the Department of Mechanical Engineering of the Politecnico di Milano, on subjects relevant to the Applied Mechanics. In particular, the candidate was mainly involved in cable dynamics, vibro-acoustics, smart structures, control logics and applications, winter sports equipments, fluid-structure interaction of rail and road vehicles.

The candidate used both theoretical / analytical and experimental approaches, for his researches, along with a continuous activity in the laboratory and in the field.

The scientific activity has been continuous and with a good level, as it is witnessed by 24 papers on international journals, 3 on national journals and 47 on proceedings of international and national conferences. The candidate has also obtained a grant from CIFI "Collegio Ingegneri Ferroviari Italiani" for the research activity in modelling and measuring of rolling noise associated to the wheel-rail contact.

SUBMITTED PUBLICATIONS:

No. of publication	Type/Title of Publication	Judgment
1	Ripamonti, F., Chiarabaglio, A. A smart solution for improving ride comfort in high-speed railway vehicles (2019) <i>JVC/Journal of Vibration and Control</i> , 25 (13), pp. 1958-1973. DOI: 10.1177/1077546319843377	1,31
2	Ripamonti, F., Cola, F. Control system for a carbon fiber plate using an adaptive negative derivative feedback contrai algorithm (2018) <i>JVC/Journal of Vibration and Control</i> , 24 (21), pp. 4988-4999. DOI: 10.1177/1077546317740451	1,19
3	Ripamonti, F., Orsini, L., Resta, F. A Nonlinear Sliding Surface in Sliding Mode Contrai to Reduce Vibrations of a	1,13

	Three-Link Flexible Manipulator (2017) <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 139 (5), art. no. 051005,. DOI: 10.1115/1.4036502	
4	Serra, M., Resta, F., <u>Ripamonti, F.</u> Dependent modal space control: Experimental test rig (2017) <i>JVC/Journal of Vibration and Control</i> , 23 (15), pp. 2418-2429 . DOI: 10.1177/1077546315616699	1,13
5	<u>Ripamonti, F.</u> , Leo, E., Resta, F. Experimental and numerical comparison between two nonlinear control logics (2016) <i>International Journal of Applied Mechanics</i> , 8 (5), art. no. 1650061, . DOI: 10.1142/51758825116500617	1,13
6	Cinquemani, S., Diana, G., Fossati, L., <u>Ripamonti, F.</u> A smart structure for wind tunnel investigation of a bridge deck's vortex-induced torsional motion (2016) <i>Mechatronics</i> , 33, pp. 108-120. DOI: 10.1016/j.mechatronics.2015.11.003	1,22
7	Cola, F., Resta, F., <u>Ripamonti, F.</u> A negative derivative feedback design algorithm (2014) <i>Smart Materials and Structures</i> , 23 (8), art. no. 085008,. DOI: 10.1088/0964-1726/23/8/085008	1,00
8	Ambrosio, P., Cazzulani, G., Resta, F., <u>Ripamonti, F.</u> An optimal vibration control logic for minimising fatigue damage in flexible structures (2014) <i>Journal of Sound and Vibration</i> , 333 (5), pp. 1269-1280. DOI: 10.1016/j.jsv.2013.11.010	1,22
9	Serra, M., Resta, F., <u>Ripamonti, F.</u> Dependent modal space control (2013) <i>Smart Materials and Structures</i> , 22 (10), art. no. 105004,. DOI: 10.1088/0964-1726/22/10/105004	1,00
10	Cazzulani, G., Moschini, S., Resta, F., <u>Ripamonti, F.</u> A diagnostic logic for preventing structural failure in concrete displacing booms (2013) <i>Automation in Construction</i> , 35, pp. 499-506. DOI: 10.1016/j.autcon.2013.06.004	0,84
11	Ambrosio, P., Resta, F., <u>Ripamonti, F.</u> An H2 norm approach for the actuator and sensor placement in vibration control of a smart structure (2012) <i>Smart Materials and Structures</i> , 21 (12), art. no. 125016, DOI: 10.1088/0964-1726/21/12/125016	1,13
12	Cazzulani, G., Resta, F., <u>Ripamonti, F.</u> , Zanzi, R. Negative derivative feedback for vibration control of flexible structures (2012) <i>Smart Materials and Structures</i> , 21 (7), art. no. 075024,. DOI: 10.1088/0964-1726/21/7/075024	0,97
13	Bagordo, G., Cazzulani, G., Resta, F., <u>Ripamonti, F.</u> A modal disturbance estimator for vibration suppression in nonlinear flexible structures (2011) <i>Journal of Sound and Vibration</i> , 330 (25), pp. 6061- 6069. DOI: 10.1016/j.jsv.2011.07.014	1,09
14	Cazzulani, G., Ghielmetti, C., Giberti, H., Resta, F., <u>Ripamonti, F.</u> A test rig and numerical model for investigating truck mounted concrete pumps (2011) <i>Automation in Construction</i> , 20 (8), pp. 1133-1142. DOI: 10.1016/j.autcon.2011.04.015	0,83
15	Cazzulani, G., Resta, F., <u>Ripamonti, F.</u> A feedback and feedforward vibration control for concrete placing boom (2011) <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 133 (5), art. no. 051002,. DOI: 10.1115/1.4003932	1,13

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16	Cheli, F., Ripamonti, F., Sabbioni, E., Tomasini, G. Wind tunnel tests on heavy road vehicles: Cross wind induced loads-Part 2 (2011) <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 99 (10), pp. 1011-1024. 00 1: 10.1016/j.jweia.2011.07.007	1,09
17	Resta, F., Ripamonti, F., Cazzulani, G., Ferrari, M. Independent modal control for nonlinear flexible structures: An experimental test rig (2010) <i>Journal of Sound and Vibration</i> , 329 (8), pp. 961-972. 001: 10.1016/j.jsv.2009.10.021	1,22
18	Cheli, F., Ripamonti, F., Rocchi, D., Tomasini, G. Aerodynamic behaviour investigation of the new EMUV250 train to cross wind (2010) <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 98 (4- 5), pp. 189-201. 001: 10.1016/j.jweia.2009.10.015	1,22
19	Cigada, A., Lurati, M., Ripamonti, F., Vanali, M. Moving microphone arrays to reduce spatial aliasing in the beamforming technique: Theoretical background and numerical investigation (2009) <i>Journal of the Acoustical Society of America</i> , 124 (6), pp. 3648-3658. 001: 10.1121/1.2998778	0,47
20	Cigada, A., Ripamonti, F., Vanali, M. The delay & sum algorithm applied to micro phone array measurements: Numerical analysis and experimental validation (2007) <i>Mechanical Systems and Signal Processing</i> , 21 (6), pp. 2645-2664 . 001: 10.1016/j.ymssp.2007.01.001	1,25
Total		21,54

Overall collective judgement

QUALITY OF SCIENTIFIC AND/OR PROJECT PRODUCTION, ASSESSED ON THE BASIS OF CRITERIA AND PARAMETERS RECOGNIZED BY THE INTERNATIONAL SCIENTIFIC COMMUNITY OF REFERENCE:

Considering the twenty papers presented by the candidate Francesco RIPAMONTI, all of them have been published in international journals, the board was able to recognize that they are original and innovative and that they are methodologically rigorous and scientifically relevant. They also reflect the different fields of interest to the candidate, all consistent with Applied Mechanics (sector SC 09/A2).

DIDACTIC ACTIVITIES CARRIED OUT IN ITALIAN OR FOREIGN UNIVERSITIES OR BODIES:

The teaching activity of the candidate Francesco RIPAMONTI has been continuous since 2004-2005 as assistant lecturer in 24 different courses in several Schools of Politecnico di Milano. In the academic year 2019-2020 he is lecturer for a course in the bachelor's degree in Mechanical Engineering, Politecnico di Milano.

He supervised more than 50 master degree students.

SCIENTIFIC RESPONSIBILITY FOR FUNDED RESEARCH PROJECTS:

Candidate Francesco RIPAMONTI, since 2012, has been responsible for 23 research and test projects within the framework of collaborations between the Department of Mechanical Engineering of the Politecnico di Milano and public and private companies (Maina Organi di Trasmissione, YCOM, Studio Polaris, Martinenghi, Tratos Cavi, Sitep Italia, Gorla Morsetterie, De Angeli Prodotti, Guangzhou Xinyuan Hengye Power Transmission Device Co., - Statnett SF, Industrias Arruti S.A., A.Salvi & C, Dalekovod Proizvodnja, SA-RA Energy, Construction, Trade&Industry Co., DAMP, Trenitalia, FZSONICK SA, Terna Rete Italia, Forjasul Canoas S.A. Industria Metalurgica, UGUR TURKYURT).

RESULTS OBTAINED IN TECHNOLOGY TRANSFER IN TERMS OF PARTICIPATION IN THE CREATION OF NEW ENTERPRISES (SPIN OFF), DEVELOPMENT, USE AND MARKETING OF PATENTS:

Candidate Francesco RIPAMONTI is author or co-author of 10 patents granted and 3 patents pending. This testifies an excellent inventive activity applied to the search for innovative solutions suitable for technology transfer.

SCRUTINY OF THE DEGREE OF KNOWLEDGE OF THE ENGLISH LANGUAGE:

Appropriate knowledge of the foreign language by the candidate Francesco RIPAMONTI has been verified by analyzing the scientific production and the documentation produced by him.

THE BOARD

Prof. PENNACCHI Paolo Emilio Lino Maria (Chairman)

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Prof. VIADERO-RUEDA Fernando (Member)

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Prof. LIEBICH Robert Andreas (Secretary)





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ATTACHMENT No. 2 to the FINAL REPORT

MERIT RANKING

SURNAME AND NAME	Overall score
RIPAMONTI Francesco	76,54

Milan, 5th November 2019

THE BOARD

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