

## **FREE UNIVERSITY OF BOZEN-BOLZANO**

### **SELECTION PROCEDURES**

**for**

**7 posts of**

***SENIOR* UNIVERSITY RESEARCHER**

**with fixed-term contract**

**[Article 24 law 240/2010 RTDb)]**

Rector's Decree

of 06.12.2018,

no. 654/2018

# FREE UNIVERSITY OF BOZEN-BOLZANO

## RECTOR'S DECREE no. 654/2018

---

Selection procedures for 7 posts of *Senior* University Researcher with fixed-term contract [Article 24 law 240/2010 RTDb)]

### THE RECTOR

In view of

- the Statute of the Free University of Bozen-Bolzano;
- Art. 24 of the law 30th December 2010, no. 240;
- the regulation for the recruitment of researchers with fixed-term contract in force;
- the applicable regulation regarding the contractual and economic conditions of the professors and researchers;
- the resolution of the Faculty Council of the Faculty of Science and Technology of 16.05.2018, no. 114/2018, concerning the propose of the recruitment of 7 *Senior* University Researcher with fixed-term contract in the disciplinary-scientific sectors ING-IND/10 (Thermal engineering and industrial energy systems), ING-IND/11 (Building Physics and Building Energy Systems), ING-IND/13 (Mechanics of Machines), ING-IND/14 (Mechanical Design and Machine Construction), ING-IND/15 (Design methods for industrial engineering), ING-IND/16 (Manufacturing technology and systems) and ING-IND/32 (Power electronic converters, electrical machines and drives), subject to the approval of the University Council regarding the change of the program of activities;
- the decree of the Dean of the Faculty of Science and Technology of 29.10.2018, no. 40/2018, concerning the approval of the forms with the essential elements of the above positions;
- the resolution of the University Council of 09.11.2018, no. 118/2018, concerning the approval of the change of the program of activities of the Faculty of Science and Technology regarding the employment plan;
- the resolution of the University Council of 09.11.2018, no. 119/2018, concerning the approval of the recruitment of one *Senior* University Researcher with fixed-term contract at the Faculty of Science and Technology in the disciplinary-scientific sector ING-IND/10 (Thermal engineering and industrial energy systems);
- the resolution of the University Council of 09.11.2018, no. 120/2018, concerning the approval of the recruitment of one *Senior* University Researcher with fixed-term contract at the Faculty of Science and Technology in the disciplinary-scientific sector ING-IND/11 (Building Physics and Building Energy Systems);
- the resolution of the University Council of 09.11.2018, no. 121/2018, concerning the approval of the recruitment of one *Senior* University Researcher with fixed-term contract at the Faculty of Science and Technology in the disciplinary-scientific sector ING-IND/13 (Mechanics of Machines);
- the resolution of the University Council of 09.11.2018, no. 122/2018, concerning the approval of the recruitment of one *Senior* University Researcher with fixed-term contract at the Faculty of Science and Technology in the disciplinary-scientific sector ING-IND/14 (Mechanical Design and Machine Construction);
- the resolution of the University Council of 09.11.2018, no. 123/2018, concerning the approval of the recruitment of one *Senior* University Researcher with fixed-term contract at the Faculty of Science and Technology in the disciplinary-scientific sector ING-IND/15 (Design methods for industrial engineering);
- the resolution of the University Council of 09.11.2018, no. 124/2018, concerning the approval of the recruitment of one *Senior* University Researcher with fixed-term contract at the Faculty of Science and Technology in the disciplinary-scientific sector ING-IND/16 (Manufacturing technology and systems);

- the resolution of the University Council of 09.11.2018, no. 126/2018, concerning the approval of the recruitment of one *Senior* University Researcher with fixed-term contract at the Faculty of Science and Technology in the disciplinary-scientific sector ING-IND/32 (Power electronic converters, electrical machines and drives);
- considered that the posts of Senior University Researcher with fixed-term contract requested by the Faculty enjoy the necessary financial backing.

## DECREES

### Art. 1

#### *Object of the selection procedures*

The Free University of Bolzano, hereinafter referred to as University, announces 7 selection procedures for 7 posts of Senior University Researcher with fixed-term contract [Article 24 law 240/2010 RTDb)] for the Faculty and the disciplinary-scientific sector hereafter indicated.

### 1. Faculty of Science and Technology

#### VI Session 2018

**Number of positions:** 1

**PIS:** 142120 (TN3002)

**Supervisor:** Prof. Marco Baratieri

**Disciplinary-scientific sector:** ING-IND/10 (Thermal engineering and industrial energy systems)

**Competition Sector:** 09/C2 (Technical Physics and Nuclear Engineering)

**Area of research or title of the research project:** The research field deals with the study of the processes of heat transfer and with the thermofluiddynamic behaviour of combined heat and power systems fed by renewable sources, in particular by biomass.

**Research activity:** The candidate will carry out teaching and research activities relevant to the ING-IND/10 sector.

This research area aims to the study of distributed cogeneration technologies which are most promising, in order to valorise the local biomass utilization in South-Tyrol, increase the conversion processes' efficiency and contribute to the mitigation of environmental impacts.

Novel processes whose aim is solid fuels (biomass and waste) upgrade into intermediate fuels (solid, liquid and gaseous) are particularly relevant as gasification and pyrolysis.

The research focuses in particular on: 1) biomass characterization, i.e. analysis of physical-chemical and energetic characteristics; 2) experimental and modelling analysis of energy conversion processes and systems; 3) characterization of the gasification/pyrolysis products and by-product and their valorization to generate heat, electricity and chemicals.

The research methods, experimental and theoretical, will be applied both at the laboratory and at the pilot scale. It is foreseen to present the research results both to the scientific audience and as informative paper/speech and also on the media, in the area of the energy generation from biomass.

**Number of teacher-centered didactic hours assigned per academic year:** min. 60 hours and max. 120 hours per academic year

**Type of selection:** By qualifications and discussion of qualifications and scientific production and oral exam

**Language of the interview:** English

**Oral exam:** German and Italian

**Criteria for the attribution of a score for titles, projects, art production and every single publication during the interview with the Commission (max. 86 points):**

Scientific qualifications (max. 61 points)

- a) Research topic of the PhD Dissertation consistent with the disciplinary-scientific sector of the present call: up to a maximum of 6 points;
- b) Current and past academic positions held in the academic discipline of the call and in related areas: up to a maximum of 10 points;
- c) - Teaching activity at university level in the field of this call: up to a maximum of 15 points;
- d) Editorial and reviewing activities relevant in the academic discipline of the call: up to a maximum of 5 points;
- e) Participation and coordination of competitive research projects; Research collaborations with industry and public administrations as well as third mission activities related to the academic discipline of the call: up to a maximum of 5 points;
- f) National habilitation for associate professorship in the academic recruitment field of the call: up to a maximum of 10 points;
- g) High scientific national or international recognition through publications, conference contributions or artistic achievements in the last 5 years: up to a maximum of 10 points;

Publications (max 25 points)

- a) Originality, innovativeness and importance of each scientific publication
- b) Congruence of each publication with the sector the selection procedure relates to
- c) Scientific relevance of the publication's editorial classification and their diffusion among the scientific community
- d) The consistency of the methods used in publications with the research project.

**Criteria for determining the part of the candidate in publications with more than one author:**

For publications with multiple authors, the individual contribution of the candidate, if not obvious from the text, is determined based on a duly signed statement of the authors of the work on the contribution of the individual. In the absence of such a declaration, the contribution among the various authors is considered equally weighted.

**Criteria for assigning scores for language proficiency (max. 14 points):**

- max 7 points for German;
- max 7 points for Italian;

The candidate's language proficiency will be evaluated based on the following criteria:

- a) level of understanding
- b) language property
- c) knowledge of the specialized terminology of the scientific sector of the call

The assessment of linguistic skills will be done by reading, understanding and orally translating a technical text in German and Italian chosen by the commission

**Threshold for the assessment of candidate's suitability with regard to the qualifications, projects, artistic production and publications: 50/86**

**Threshold for the assessment of candidate's suitability with regard to the oral exam: 9/14**

**Maximum number of publications: 12**

**Kind of employment:** full time

**Duration of the contract:** 3 years

**Working place:** Bozen – Bolzano

**Expected start date of the contract:** the post will be filled not before 01.07.2020. Only in case that the Junior University researcher of this disciplinary-scientific sector resigns from the current contract and nobody suitable is on the ranking list, the first ranked of the Senior University researcher in the same disciplinary-scientific sector can be employed before the 01.07.2020.

---

## **2. Faculty of Science and Technology**

### **VI Session 2018**

**Number of positions:** 1

**PIS:** 142121 (TN3002)

**Supervisor:** Prof. Andrea Gasparella

**Disciplinary-scientific sector:** ING-IND/11 (Building Physics and Building Energy Systems)

**Competition Sector:** 09/C2 (Technical Physics and Nuclear Engineering)

**Area of research or title of the research project:** Building physics and buildings' energy systems and in particular the study of energy efficiency and non-energy performance of buildings

**Research activity:** Building physics and buildings' energy systems and in particular the study of energy efficiency and non-energy performance of buildings is an important focus in the Strategic Research Agenda of the Faculty of Science and Technology.

It aims at developing the knowledge on the evaluation, experimental and numerical, of the materials, components and systems and related physical phenomena, on the optimization of the design and management of buildings in order to maintain and improve the environmental quality for the occupants – in particular thermo-hygrometric, visual and acoustic comfort, and indoor air quality - and at the same time reducing the energy and environmental impact of buildings.

The research aims at contributing to innovation and technology transfer for the construction and HVAC Industry.

Sound scientific competences are needed in the area of building physics and building energy systems and in particular in the techniques of laboratory and on site measurements of thermo-physical properties, in energy and multiphysics modeling of components and systems, up to the scale of building, in the optimization either single and multiobjective, and in the analysis of the results, through statistical approaches and techniques.

The research activities will be conducted in collaboration with local partners and international organizations, in coordination with the Building Physics and Building Energy Systems research group.

Activity includes: (1) Design and settling of experimental systems for measurements on site and in the laboratory; (2) Collection and analysis of experimental data in the laboratory and on site, related to psychrometric measurements, thermophysical properties of fluids and materials, energy and non-energy performance of components and systems, up to the scale of building, including quantities regarding environmental comfort (thermal-hygrometric, visual and acoustic); (3) Energy and multiphysics modeling of phenomena, components, systems up to the building scale; (4) Analysis of results with statistical techniques; (5) Reporting, presentation and publication of the results for internal use or for external use, either for a scientific or non-scientific public.

**Number of teacher-centered didactic hours assigned per academic year:** min. 60 hours and max. 120 hours per academic year

**Type of selection:** By qualifications and discussion of qualifications and scientific production and language exam

**Language of the interview:** English

**Language exam:** German and Italian

**Criteria for the attribution of a score for titles, projects, art production and every single publication during the interview with the Commission (max. 86 points):**

Scientific qualifications (max. 61 points)

- a) Research topic of the PhD Dissertation consistent with the disciplinary-scientific sector of the present call: up to a maximum of 6 points;
- b) Current and past academic positions held in the academic discipline of the call and in related areas: up to a maximum of 10 points;
- c) Teaching activity at university level in the field of this call: up to a maximum of 15 points;
- d) Editorial and reviewing activities relevant in the academic discipline of the call: up to a maximum of 5 points;
- e) Participation and coordination of competitive research projects; Research collaborations with industry and public administrations as well as third mission activities related to the academic discipline of the call: up to a maximum of 5 points;
- f) National habilitation for associate professorship in the academic recruitment field of the call: up to a maximum of 10 points;
- g) High scientific national or international recognition through publications, conference contributions or artistic achievements in the last 5 years: up to a maximum of 10 points;

Publications (max 25 points)

- a) Originality, innovativeness and importance of each scientific publication
- b) Congruence of each publication with the sector the selection procedure relates to
- c) Scientific relevance of the publication's editorial classification and their diffusion among the scientific community
- d) The consistency of the methods used in publications with the scientific sector.

**Criteria for determining the part of the candidate in publications with more than one author:**

For publications with multiple authors, the individual contribution of the candidate, if not obvious from the text, is determined based on a duly signed statement of the authors of the work on the contribution of the individual. In the absence of such a declaration, the contribution among the various authors is considered equally weighted.

**Criteria for assigning scores for language proficiency (max. 14 points):**

- max 7 points for German;
- max 7 points for Italian;

The candidate's language proficiency will be evaluated based on the following criteria:

- a) level of understanding
- b) language property
- c) knowledge of the specialized terminology of the scientific sector of the call

The assessment of linguistic skills will be done by reading, understanding and orally translating a technical text in Italian and in German chosen by the commission

**Threshold for the assessment of candidate's suitability with regard to the qualifications, projects, artistic production and publications: 50/86**

**Threshold for the assessment of candidate's suitability with regard to the oral exam: 9/14**

**Maximum number of publications: 12**

**Kind of employment:** full time

**Duration of the contract:** 3 years

**Working place:** Bolzano

**Expected start date of the contract:** the post will be filled not before 01.07.2020. Only in case that the Junior University researcher of this disciplinary-scientific sector resigns from the current contract and nobody suitable is on the ranking list, the first ranked of the Senior University researcher in the same disciplinary-scientific sector can be employed before the 01.07.2020.

---

### **3. Faculty of Science and Technology**

**VI Session 2018**

**Number of positions:** 1

**PIS:** 142111 (TN3002)

**Supervisor:** Prof. Dominik Matt

**Disciplinary-scientific sector:** ING-IND/13 (Mechanics of Machines)

**Competition Sector:** 09/A2 (Mechanics of Machines)

**Title of the research project:** Modelling, simulation, analysis and optimization of mechanical systems, in particular multi-body, for the enhancement of the mechanical and energetic performances.

**Area of research:** "INDUSTRIAL ENGINEERING AND AUTOMATION" represents an important axis of the Strategic Research Agenda of the Faculty of Science and Technology, which brings together different skills in the areas of: product development, manufacturing and assembly processes, design and management of production systems as well as mechanical and mechatronic design, automation and digitization techniques in the context of Industry 4.0.

A special focus is given to the study, development, validation and implementation of methods and technologies for advanced mechanics, automation and logistics, particularly in the context of small and medium-sized enterprises.

**Research activity:** The researcher will work in the Applied Mechanics field and within the research group active at the Free University of Bozen.

In particular, the research activities will focus on the study of multi-body systems (and mechanical systems in general) and the optimization of their dynamic performance also through innovative and/or unconventional approaches, methods and techniques.

In this regard, developments that exploit the possibilities and results made available by modern additive manufacturing technologies and modern mechatronics will be possible and advisable.

Results will allow improving the performance in terms of induced vibrations, energy consumption and costs not only of design and development, but also of prototyping and in-operation.

**Number of teacher-centered didactic hours assigned per academic year:** min. 60 hours and max. 120 hours per academic year

**Type of selection:** By qualifications and discussion of qualifications and scientific production and oral exam

**Language of the interview:** English

**Oral exam:** German

**Criteria for the attribution of a score for titles, projects, art production and every single publication during the interview with the Commission (max. 80 points):**

**Scientific qualifications (max. 62 points)**

- a) Master's degree in Mechanical Engineering or equivalent (max. 5 points);
- b) Doctoral degree or equivalent in the sector (or in a related sector) of the position advertised, obtained in Italy or abroad (max. 10 points)
- c) University-level didactic activities in Italy or abroad (max. 10 points)
- d) documented training or research activity in research institutions in Italy or abroad (e.g. research contract at university level or at a another renowned research institution) (max. 15 points)
- e) Speaker at national or international conferences and/or workshops in the Scientific-Sector (max. 6 points)
- f) High scientific national or international recognition through publications, conference contributions, invited talks, organization of scientific events or artistic achievements in the last 5 years (max. 4 points);
- g) Experience (gained on the job or through research projects) in the scientific-sector (max. 12 points)

**Publications (max 18 points)**

- a) Originality, innovativeness and importance of each scientific publication
- b) Congruence of each publication with the sector the selection procedure relates to
- c) Scientific relevance of the publication's editorial classification and their diffusion among the scientific community
- d) The consistency of the methods used in publications with the research project.

**Criteria for determining the part of the candidate in publications with more than one author:**

For publications with multiple authors, the individual contribution of the candidate, if not obvious from the text, is determined based on a duly signed statement of the authors of the work on the contribution of the individual. In the absence of such a declaration, the contribution among the various authors is considered equally weighted.

**Criteria for assigning scores for language proficiency (max. 20 points):**

The candidate's German language proficiency will be evaluated based on the following criteria:

- a) level of understanding
  - b) speaking fluency
  - c) knowledge of the specialized terminology of the scientific sector of the call
- Oral translation of a short text chosen by the commission

**Threshold for the assessment of candidate's suitability with regard to the qualifications, projects, artistic production and publications: 50/80**

**Threshold for the assessment of candidate's suitability with regard to the oral exam: 15/20**

**Maximum number of publications: 12**

**Kind of employment: full time**

**Duration of the contract: 3 years**

**Working place: Bozen – Bolzano**

**Expected start date of the contract:** the post will be filled not before 01.09.2019. Only in case that the Junior University researcher of this disciplinary-scientific sector resigns from the current contract and nobody suitable is on the ranking list, the first ranked of the Senior University researcher in the same disciplinary-scientific sector can be employed before the 01.09.2019.

---

## **4. Faculty of Science and Technology**

**VI Session 2018**



**Number of positions:** 1

**PIS:** 142117 (TN3002)

**Supervisor:** Prof. Dominik Matt

**Disciplinary-scientific sector:** ING-IND/14 (Mechanical Design and Machine Construction)

**Competition Sector:** 09/A3 (Industrial Design, Construction of Machines, Metallurgy)

**Title of the research project:** Development of methodologies and tools for the study and design of more effective and efficient mechanical components and systems.

**Research area:** "INDUSTRIAL ENGINEERING AND AUTOMATION" represents an important axis of the Strategic Research Agenda of the Faculty of Science and Technologies, which follows the technical-organizational optimization of processes and production technologies with the aim of improving quality and ergonomics, as well as the reduction of costs and delivery times. Particular attention is paid to the design and use of management methodologies and automation technologies, particularly in the context of small and medium-sized enterprises in industry, construction and agriculture.

**Research activity:** The research activity is aimed at the study of mechanical systems both from a structural (static failure and fatigue) and an operational point of view (wear, lubrication, efficiency).

In the research, new materials, coatings, lubricants, thermochemical or mechanical treatments and production technologies (for example additive manufacturing) will be studied also through experimental characterization. The applicability of these solutions to real cases will be studied through the development and application of advanced design methods and numerical modeling techniques (design methodologies, numerical simulations, etc.).

The research aims to offer new technical solutions, materials, system architectures, concepts and tools to support the design (calculation models, advanced numerical techniques) that allow performance improvements of the solutions currently on the market and the development of mechanical systems with better performances.

**Number of teacher-centered didactic hours assigned per academic year:** min. 60 hours and max. 120 hours per academic year

**Type of selection:** By qualifications and discussion of qualifications and scientific production and language exam

**Language of the interview:** English

**Language exam:** German

**Criteria for the attribution of a score for titles, projects, art production and every single publication during the interview with the Commission (max. 80 points):**

**Academic titles (max. 68 points)**

- a) research doctorate (PhD) or equivalent study title in a related scientific area obtained in Italy or abroad (max. 6 points)
- b) University-level didactic activities in Italy or abroad (max. 18 points)
- c) documented training or research activity in research institutions in Italy or abroad (max. 15 points)
- d) Speaker at national or international conferences in the scientific sector (max. 12 points)
- e) High scientific national or international recognition through publications, conference contributions, organization of scientific events or artistic achievements in the last 5 years (max. 5 points)
- f) Experience in industry-oriented technology transfer with regard to methods and tools for product and process design (max. 12 points)

**Publications (max 12 points)**

- a) Originality, innovativeness and importance of each scientific publication
- b) Congruence of each publication with the competitive-sector the selection procedure relates to

- c) Scientific relevance of the publication's editorial classification and their diffusion among the scientific community
- d) The consistency of the methods used in publications with the scientific-sector.

**Criteria for determining the part of the candidate in publications with more than one author:**

For publications with multiple authors, the individual contribution of the candidate, if not obvious from the text, is determined based on a duly signed statement of the authors of the work on the contribution of the individual. In the absence of such a declaration, the contribution among the various authors is considered equally weighted.

**Criteria for assigning scores for language proficiency (max. 20 points):**

The candidate's German language proficiency will be evaluated based on the following criteria:

- a) level of understanding
  - b) speaking fluency
  - c) knowledge of the specialized terminology of the scientific sector of the call
- Oral translation of a short text chosen by the commission

**Threshold for the assessment of candidate's suitability with regard to the qualifications, projects, artistic production and publications: 50/80**

**Threshold for the assessment of candidate's suitability with regard to the oral exam: 15/20**

**Maximum number of publications: 12**

**Kind of employment: full time**

**Duration of the contract: 3 years**

**Working place: Bozen – Bolzano**

**Expected start date of the contract:** the post will be filled not before 01.02.2020. Only in case that the Junior University researcher of this disciplinary-scientific sector resigns from the current contract and nobody suitable is on the ranking list, the first ranked of the Senior University researcher in the same disciplinary-scientific sector can be employed before the 01.02.2020.

---

## **5. Faculty of Science and Technology**

### **VI Session 2018**

**Number of positions: 1**

**PIS: 142122 (TN3002)**

**Supervisor: Prof. Dominik Matt**

**Disciplinary-scientific sector: ING-IND/15 (Design methods for industrial engineering)**

**Competition Sector: 09/A3 (Industrial design, machine construction and metallurgy)**

**Title of the research project:** Development of methods and tools to improve the quality of industrial products through the exploitation of new technologies and the maximization of designers' creative skills.

**Area of research:** "INDUSTRIAL ENGINEERING AND AUTOMATION" represents an important axis of the Strategic Research Agenda of the Faculty of Science and Technology, which follows the technical and

organizational optimization of production processes and technologies with the aim of improving quality and ergonomics as well as the reduction of costs and delivery times. A special focus is given to the design and use of management and automation techniques, particularly in the context of small and medium-sized enterprises in industry, construction and agriculture.

**Research activity:** The research activity is focused on the investigation, the (further) development and use of methods and tools for the efficient design of technically sound and innovative products and projects in the field of industrial engineering, with reference to the specific needs of small and medium-sized enterprises (SMEs). The morphological, functional and aesthetic development of technically innovative solutions should be accompanied by appropriate information, technology-based methods for visualization and simulation of virtual prototypes, also making use of virtual reality tools. Still related to the specific context of SMEs, special attention should be paid to the fostering of creativity, the design of the product development process and to the development, the adaptation and the use of methods and models of product data management and product lifecycle management, as well as their interaction with virtual models.

Given the growing challenges that arise from increasingly dynamic markets, concrete research results are expected in terms of the development of new approaches for small and medium-sized businesses with the goal of improving their innovation success rate.

**Number of teacher-centered didactic hours assigned per academic year:** min. 60 hours and max. 120 hours per academic year

**Type of selection:** By qualifications and discussion of qualifications and scientific production and oral exam

**Language of the interview:** English

**Oral exam:** German

**Criteria for the attribution of a score for titles, projects, art production and every single publication during the interview with the Commission (max. 80 points):**

**Academic titles (max. 68 points)**

- a) research doctorate (PhD) or equivalent study title in a related scientific area obtained in Italy or abroad (max. 6 points)
- b) University-level didactic activities in Italy or abroad (max. 18 points)
- c) documented training or research activity in research institutions in Italy or abroad (max. 15 points)
- d) Speaker at national or international conferences in the scientific sector (max. 12 points)
- e) High scientific national or international recognition through publications, conference contributions, organization of scientific events or artistic achievements in the last 5 years (max. 5 points)
- f) Experience in industry-oriented technology transfer with regard to methods and tools for product and process design (max. 12 points)

**Publications (max 12 points)**

- a) Originality, innovativeness and importance of each scientific publication
- b) Congruence of each publication with the competitive-sector the selection procedure relates to
- c) Scientific relevance of the publication's editorial classification and their diffusion among the scientific community
- d) The consistency of the methods used in publications with the scientific sector

**Criteria for determining the part of the candidate in publications with more than one author:**

For publications with multiple authors, the individual contribution of the candidate, if not obvious from the text, is determined based on a duly signed statement of the authors of the work on the contribution of the individual. In the absence of such a declaration, the contribution among the various authors is considered equally weighted.

**Criteria for assigning scores for language proficiency (max. 20 points):**

The candidate's German language proficiency will be evaluated based on the following criteria:

- a) level of understanding
- b) speaking fluency
- c) knowledge of the specialized terminology of the scientific sector of the call

d) Oral translation of a short text chosen by the commission

**Threshold for the assessment of candidate's suitability with regard to the qualifications, projects, artistic production and publications:** 50/80

**Threshold for the assessment of candidate's suitability with regard to the oral exam:** 15/20

**Maximum number of publications:** 12

**Kind of employment:** full time

**Duration of the contract:** 3 years

**Working place:** Bozen - Bolzano

**Expected start date of the contract:** the post will be filled not before 07.01.2021. Only in case that the Junior University researcher of this disciplinary-scientific sector resigns from the current contract and nobody suitable is on the ranking list, the first ranked of the Senior University researcher in the same disciplinary-scientific sector can be employed before the 07.01.2021.

---

## **6. Faculty of Science and Technology**

### **VI Session 2018**

**Number of positions:** 1

**PIS:** 142123 (TN3002)

**Supervisor:** Prof. Dominik Matt

**Disciplinary-scientific sector:** ING-IND/16 (Manufacturing technology and systems)

**Competition Sector:** 09/B1 (Manufacturing technology and systems)

**Title of the research project:** Planning, Design and Management of Cyber-Physical Production Systems (CPPS) for small and medium sized enterprises (SMEs).

**Area of research:** "INDUSTRIAL ENGINEERING AND AUTOMATION" represents an important axis of the Strategic Research Agenda of the Faculty of Science and Technology, which follows the technical and organizational optimization of production processes and technologies with the aim of improving quality and ergonomics as well as the reduction of costs and delivery times. A special focus is given to the design and use of management and automation techniques, particularly in the context of small and medium-sized enterprises in industry, construction and agriculture.

**Research activity:** The work includes the investigation of methods and technologies for the planning, design and management of cyber-physical production systems for small and medium-sized enterprises. Several aspects play a central role here: On the one hand, the human being should remain in focus in the sense of a human-centered and socially sustainable production system, whereby it is necessary to analyze what role the human being will play in production in the future and how the worker can be supported in complex tasks by assistance systems. On the other hand, it is necessary to analyze from a technical point of view, how different decentralized intelligent elements of the production system can be connected and the cyber-physical production system orchestrated. The introduction of Industry 4.0 in production also requires SME-friendly and intuitive user interfaces for hardware and software for simple digitization and automation with a special focus

on collaborative human-machine workstations. Finally, organizational methods must be developed for the successful introduction of digitization and industry 4.0 technologies in SMEs.

**Number of teacher-centered didactic hours assigned per academic year:** min. 60 hours and max. 120 hours per academic year

**Type of selection:** By qualifications and discussion of qualifications and scientific production and oral exam

**Language of the interview:** English

**Oral exam:** German

**Criteria for the attribution of a score for titles, projects, art production and every single publication during the interview with the Commission (max. 80 points):**

**Academic titles (max. 68 points)**

- a) research doctorate (PhD) or equivalent study title in a related scientific area obtained in Italy or abroad (max. 6 points)
- b) University-level didactic activities in Italy or abroad (max. 18 points)
- c) documented training or research activity in research institutions in Italy or abroad (max. 15 points)
- d) Speaker at national or international conferences in the scientific sector (max. 12 points)
- e) High scientific national or international recognition through publications, conference contributions, organization of scientific events or artistic achievements in the last 5 years (max. 5 points)
- f) Practical experience in the design, implementation and optimization of production systems and processes preferably in small and medium-sized enterprises (max. 12 points)

**Publications (max 12 points)**

- a) Originality, innovativeness and importance of each scientific publication
- b) Congruence of each publication with the competitive-sector the selection procedure relates to
- c) Scientific relevance of the publication's editorial classification and their diffusion among the scientific community
- d) The consistency of the methods used in publications with the scientific sector

**Criteria for determining the part of the candidate in publications with more than one author:**

For publications with multiple authors, the individual contribution of the candidate, if not obvious from the text, is determined based on a duly signed statement of the authors of the work on the contribution of the individual. In the absence of such a declaration, the contribution among the various authors is considered equally weighted.

**Criteria for assigning scores for language proficiency (max. 20 points):**

The candidate's German language proficiency will be evaluated based on the following criteria:

- a) level of understanding
- b) speaking fluency
- c) knowledge of the specialized terminology of the scientific sector of the call
- d) Oral translation of a short text chosen by the commission

**Threshold for the assessment of candidate's suitability with regard to the qualifications, projects, artistic production and publications:** 50/80

**Threshold for the assessment of candidate's suitability with regard to the oral exam:** 15/20

**Maximum number of publications:** 12

**Kind of employment:** full time

**Duration of the contract:** 3 years

**Working place:** Bozen – Bolzano

**Expected start date of the contract:** the post will be filled not before 01.02.2020. Only in case that the Junior University researcher of this disciplinary-scientific sector resigns from the current contract and nobody suitable is on the ranking list, the first ranked of the Senior University researcher in the same disciplinary-scientific sector can be employed before the 01.02.2020.

---

## **7. Faculty of Science and Technology**

### **VI Session 2018**

**Number of positions:** 1

**PIS:** 142126 (TN3002)

**Supervisor:** Prof. Marco Baratieri

**Disciplinary-scientific sector:** ING-IND/32 (Power electronic converters, electrical machines and drives)

**Competition Sector:** 09/E2 (Electrical Engineering)

**Area of research or title of the research project:** The research will be carried out in the frame of the design of high performance electromechanical conversion systems, considering both the design and analysis of electrical machines, the related drives and the control strategies.

The research will be conducted in collaboration with research groups of the Faculty of Science and Technology and foreign universities, as well as in collaboration with local partners.

**Research activity:** Analysis, modeling and design of electrical drives with high-efficiency and high torque density induction motors and synchronous motors for high performance electromechanical energy conversion. Experimental validation of the developed models by means of experimental test on specific prototypes. Collection and processing of experimental data and results. Presentation and promotion in conference and journals.

**Number of teacher-centered didactic hours assigned per academic year:** min. 60 hours and max. 120 hours per academic year

**Type of selection:** By qualifications and discussion of qualifications and scientific production and oral exam

**Language of the interview:** English

**Oral exam:** German and Italian

**Criteria for the attribution of a score for titles, projects, art production and every single publication during the interview with the Commission (max. 86 points):**

Scientific qualifications (max. 61 points)

- a) Research topic of the PhD Dissertation consistent with the disciplinary-scientific sector of the present call: up to a maximum of 6 points;
- b) Current and past academic positions held in the academic discipline of the call and in related areas: up to a maximum of 10 points;
- c) Teaching activity at university level in the field of this call: up to a maximum of 15 points;
- d) Editorial and reviewing activities relevant in the academic discipline of the call: up to a maximum of 5 points;
- e) Participation and coordination of competitive research projects; Research collaborations with industry and public administrations as well as third mission activities related to the academic discipline of the call: up to a maximum of 5 points;

- f) National habilitation for associate professorship in the academic recruitment field of the call: up to a maximum of 10 points;
- g) High scientific national or international recognition through publications, conference contributions or artistic achievements in the last 5 years: up to a maximum of 10 points;

**Publications (max 25 points)**

- a) Originality, innovativeness and importance of each scientific publication
- b) Congruence of each publication with the sector the selection procedure relates to
- c) Scientific relevance of the publication's editorial classification and their diffusion among the scientific community
- d) The consistency of the methods used in publications with the research project.

**Criteria for determining the part of the candidate in publications with more than one author:**

For publications with multiple authors, the individual contribution of the candidate, if not obvious from the text, is determined based on a duly signed statement of the authors of the work on the contribution of the individual. In the absence of such a declaration, the contribution among the various authors is considered equally weighted.

**Criteria for assigning scores for language proficiency (max. 14 points):**

- max 7 points for German;

- max 7 points for Italian;

The candidate's language proficiency will be evaluated based on the following criteria:

- a) level of understanding
- b) language property
- c) knowledge of the specialized terminology of the scientific sector of the call

The assessment of linguistic skills will be done by reading, understanding and orally translating a technical text in German and Italian chosen by the commission

**Threshold for the assessment of candidate's suitability with regard to the qualifications, projects, artistic production and publications: 50/86**

**Threshold for the assessment of candidate's suitability with regard to the oral exam: 9/14**

**Maximum number of publications: 12**

**Kind of employment: full time**

**Duration of the contract: 3 years**

**Working place: Bozen – Bolzano**

**Expected start date of the contract:** the post will be filled not before 01.02.2020. Only in case that the Junior University researcher of this disciplinary-scientific sector resigns from the current contract and nobody suitable is on the ranking list, the first ranked of the Senior University researcher in the same disciplinary-scientific sector can be employed before the 01.02.2020.

---

**Art. 2**

*Requirements for admission*

- 1) For participating in the selection procedure candidates must possess the following qualification:
  - a) PhD or equivalent, obtained in Italy or abroad.

For the position in the disciplinary-scientific sector **ING-IND/10 (Thermal engineering and industrial energy systems): Possession of a doctoral degree or equivalent in the field of**

research is congruent with the position of RTD subject to this call, obtained in Italy or abroad.

For the position in the disciplinary-scientific sector **ING-IND/11 (Building Physics and Building Energy Systems): PhD or equivalent foreign titles in engineering subjects.**

For the position in the disciplinary-scientific sector **ING-IND/13 (Mechanics of Machines): PhD in Mechanical/Mechatronics Engineering or equivalent foreign study title.**

For the position in the disciplinary-scientific sector **ING-IND/14 (Mechanical Design and Machine Construction): PhD in Industrial Engineering or in a related scientific area, or equivalent foreign study title.**

For the position in the disciplinary-scientific sector **ING-IND/15 (Design methods for industrial engineering): PhD in Industrial Engineering or in a related scientific area, or equivalent foreign study title.**

For the position in the disciplinary-scientific sector **ING-IND/16 (Manufacturing technology and systems): PhD in Industrial Engineering or in a related scientific area, or equivalent foreign study title.**

For the position in the disciplinary-scientific sector **ING-IND/32 (Power electronic converters, electrical machines and drives): Possession of a doctoral degree or equivalent in the field of research is congruent with the position of RTD subject to this call, obtained in Italy or abroad.**

In addition to the above-mentioned qualifications, candidates must hold at least one of the following contracts

- b) contracts according to art. 24 paragraph 3 letter a) of the law 240/2010 (so-called researcher with *junior* contract);
- c) contract as research assistant according to art. 51 paragraph 6 of the law 27th December 1997, no. 449, with a minimum period of 3 years (also not consecutive);
- d) a postdoctoral grant with a minimum period of 3 years (also not consecutive) according to the law 30<sup>th</sup> November 1989, no. 398;
- e) analogous contracts, research grants or grants of other foreign universities with a minimum period of 3 years (also not consecutive);
- f) contracts with a minimum period of 3 years according to art. 1 paragraph 14 of the law 230/2005
- g) contract as research assistant according to art. 22 of the law 240/2010, with a minimum period of 3 years (also not consecutive)

The requirements are also fulfilled if the total duration of the single contracts/grants according to the letters from b) to g) adds up to at least three years.

Or

- h) be in possession of the "*abilitazione scientifica nazionale*" for full or associate professor as per art. 16 law 2010/240;

and to be in possession of

i) certified knowledge of the English, Italian and German language as per "Level of the Common European Framework of Reference (CEFR) or the exams offered by the Language Centre of the Free University of Bozen-Bolzano according to the attached list of "Recognized language certificates and diplomas" with the following options:

i1) 1. language C1; 2. language B2; 3. language: B1 (Level of the Common European Framework of Reference (CEFR) or

i2) 1. language C1; 2 language C1; 3. language A2 (Level of the Common European Framework of Reference (CEFR).

There is no obligation to certify the mother tongue.



- 2) The following persons cannot participate in the selection procedure:
  - a) university professors of the first and second rank and researchers employed with open-ended contract, even if ceased from service;
  - b) those having had contracts in quality of holder of research grants and of fixed-term researcher according to Art. 22 and 24 of the law no. 240/2010 by the University or other public, not public or telematic Italian Universities, and bodies provided by paragraph 1 of Art. 22 of the law no. 240/2010 for a period that, added to the duration provided by the contract of the call, exceeds altogether 12 years, also not consecutive. For the duration of the mentioned relationships the periods of absence for maternity or for health reasons as provided by law in force are not taken into consideration;
  - c) those having relative or relative through marriage relation, up to the fourth degree, with a professor of the Department making the proposal of the activation of the contract, with the Rector, the General Director or with a member of the University Council
- 3) All above mentioned requirements must be held on the date of expiry of the term set for the presentation of the application for participation in the selection procedure.

### **Art. 3**

#### *Conditions for presenting the application for participation and the publications*

- 1) To participate in the selection procedures indicated in Art. 1 of the present call candidates must fill in an application form in unstamped paper, according to the model of attachment 'A' and available on the web page of the University

<https://www.unibz.it/en/home/position-calls/positions-for-academic-staff/?group=16&year=2018>

within 30 days from the day following the publication of this public announcement in "Gazzetta Ufficiale della Repubblica".

- 2) The application, duly dated and handwritten signed at the last page, must be addressed to:  
 Free University of Bozen – Bolzano  
 Personnel Office Academic Staff (Call)  
 Universitätsplatz 1 - P.O.B. 276  
 39100 Bozen-Bolzano

The application for participation in the selection procedures may also be directly handed in (opening hours: from Monday to Friday from 8.30 a.m. to 12.30 a.m. and from 2 p.m. to 5 p.m. on Monday, Tuesday and Thursday) or sent by post with registered letter with notification of reception or any other form appropriate to certify the reception ([personnel\\_academic@pec.unibz.it](mailto:personnel_academic@pec.unibz.it) (**personnel\_academic@pec.unibz.it, only if sent from a pec - posta elettronica certificata - account**)) within the above mentioned final date. Therefore shall be considered proof the date stamp of the accepting post office according to the D.P.R. 28th December 1970, no. 1077.

Applications sent by e-mail won't be considered.

**The candidate is obligated to add to the application in paper form, a data carrier which contains a digital copy of all documents produced (the same holds true for the publications).**

The University disclaims liability for possible postal mis-deliveries.

- 3) On the package the candidate, in addition to the requirements mentioned in paragraph 2, must affix the inscription "Application: selection procedure for one post of Senior University Researcher with fixed-term contract" and accurately indicate the faculty, the competitive sector, the initials and the denomination of the disciplinary-scientific sector, the title of the research project and the candidate's name, surname and address for the present selection procedure (the address for the present selection procedure is the candidate's elected domicile for the receipt of the communications relating to this procedure).
- 4) On the application (see attachment 'A') the candidate must clearly indicate her/his name and surname and must declare, under his/her own responsibility:

- a) the date and place of birth;
  - b) the code of personal identification (tax number);
  - c) the residence, with the indication of the street, the street number, the town, the province, the postcode;
  - d) the possessed citizenship;
  - e) the municipality on whose electoral lists she/he is registered or the reasons for the non-registration or cancellation from such lists. Foreign nationals must declare to enjoy civil and political rights in the country on which they belong;
  - f) not having been convicted of the criminal offences;
  - g) not to exceed the superior limit of twelve years, also non continuous periods, therefore considering the total duration of the contracts under Art. 22 (Research grants) and Art. 24 (fixed-term researchers) of the law 30th December 2010, no. 240, also between different universities, public, non-public or telematic ones, and with bodies as provided in Art. 22, paragraph 1 of the law no. 240/2010, as well as the duration of the contract according to the present call;
  - h) having viewed the advertisement to which this selection procedure refers and accept all its provisions;
  - i) having hold at least one of the contracts according to art. 2 of the present call;
  - j) to be in possession of the language requirements according to art. 2 of the present call;
  - k) the mother tongue;
  - l) the content of the digital copies of all documents produced correspond to the content of the copies produced on paper;
  - m) not to be a university professor of the first and second rank or a researcher employed with open-ended contract, even if ceased from service;
  - n) not to have relative or relative through marriage relation, up to the fourth degree, with a professor of the Department making the proposal of the activation of the contract, with the Rector, the General Director or with a member of the University Council;
  - o) not to have been dispensed or dismissed from the employment by a Public Administration for persistent insufficient performance, not having been declared lost from other public employment according to art. 127, paragraph 1, letter d) of the T.U. regarding provisions concerning the charter of civil servants, approved with D.P.R. 10th January 1957, no. 3, not having gained the employment through production of faked documents or vitiated by not amendable invalidity, and not having had an employment relationship by a Public Administration which has been terminated for disciplinary reasons, included those provided in art. 21 of the legislative decree 29/1993;
  - p) he/she gives the Personnel Office Academic staff the permission to send the scientific curriculum vitae to the mentoring group of the Faculty in order define the optionally payment of the scientific salary increase in case of employment;
  - q) the different activities, than those listed in Art. 12 of the present call, he/she perform;
  - r) that everything in the curriculum vitae (CV) that has been attached to this application is true and s/he gives the person in charge of the selection procedure the permission to undertake any checks on any substitute declarations that have been presented by the undersigned for the purposes of this selection procedure;
  - s) he/she has received the data protection instructions as per art. 13 GDPR (2016/679) and to know that the supplied data, as well special categories of data (sensitive and judicial data) will be used exclusively for this selection procedure and the possible conclusion of the contract as per GDPR;
  - t) the address chosen for the receipt of communications relating to the selection procedure she/he has applied for (address with postcode, telephone number, possible e-mail-address or fax number) and the commitment to inform the University in case of possible subsequent variations of those data.
- 5) Candidates with recognized disabilities must expressly specify in their application any aid needed in relation to their handicap and the possible necessity of further time for the performance of the exams, according to art. 20 of the law 5th February 1992, no. 104.
  - 6) Any variation of the candidate's data according to paragraph 4 of the present article must be communicated immediately to this Administration with registered letter with notification of reception.
  - 7) The University accepts no responsibility for cases in which candidates are untraceable or the communications are undeliverable due to imprecise indication of the address, or belated or lack of notification on the part of the candidate regarding a change of the address declared in the application.

The University also disclaims liability for mail going astray, whether third parties are to blame, or whether it is attributable to mishaps, or to *force majeure* and which, in any case, is in no wise ascribable to the University. It accepts no blame when the return delivery slip indicating receipt of the application, of documents or of communications relating to the selection procedures fails to arrive. If the candidate's address differs from that of her/his place of residence, again the University is exempt from responsibility should a registered letter with notification of receipt arriving at the place which the candidate had specified as his address during the period of selection, fail to reach her/him.

#### **Art. 4**

##### *Presentation of qualifications*

- 1) Considered that, in accordance to the present call, by 'qualifications' are intended the scientific and didactic ones and the publications, and for 'certificates' any document proving the possession of a certain qualification, the candidate must enclose at the application for participation in the selection procedure in unstamped paper:
  - a) 1 photocopy of a valid identity document and the tax number;
  - b) 1 photocopy of the curriculum vitae regarding the didactic and scientific activity and drawn up according to the model of attachment 'C';
  - c) didactic and scientific qualifications believed useful for the comparative assessment;
  - d) documentation in order to prove the language requirements according to art. 2 paragraph 1 letter i of this call;
  - e) 1 photocopy of the numbered list of the publications believed useful for the comparative assessment and drawn up in accordance with article 5 of this call;
  - f) 1 photocopy of the list of all documents enclosed at the application [generic list of those materially inserted in the envelope, or the documents required by letters a), b), c) and d) of the present paragraph].
  
- 2) The qualifications indicated in paragraph 1, letters c) and d), of the present article, if issued by Italian Public Administration, must be produced in one of the following forms:
  - a) in copy corresponding to the original as certified by substitutive declaration of the deed of notoriety according to art. 47 of the D.P.R. 28th December 2000, no. 445. In that case the candidate must produce:
    - 1 copy of each qualification;
    - 1 declaration drawn up according to the model of attachment 'B', signed and dated at the last page, where the candidate, under own responsibility, declares that the copies of the enclosed qualifications, exactly described, and in particular with regard to the date of attainment, place and Administration issuing the qualification, correspond to the original. That declaration at the same time serves as list of the qualifications, in which case the latter ones do not have to be produced;
    - 1 copy of an identity document;
  - b) in form of a self-declaration according to the model of attachment 'B' (substitutive declaration of certification according to art. 46 of the D.P.R. 28th December 2000, no. 445), where the candidate, under own responsibility, declares to possess the qualifications, exactly described, in particular with regard to the date of issue, place and Administration issuing the qualification. In that case the candidate must produce:
    - 1 copy of the attachment 'B', signed and dated at the last page, which at the same time serves as list of the qualifications, in which case the latter ones must not be produced;
    - 1 copy of an identity document.

**The University cannot request nor accept certificates issued by other Italian public offices.**

**If the above-mentioned certificates should be enclosed at the application for participation in the selection procedure, they will not be considered by the Commission of selection.**

The certificates issued by private corporation or abroad can be produced in one of the following forms:

- a) in original;
- b) in certified copy;

c) in copy corresponding to the original as certified by substitutive declaration of the deed of notoriety or in form of a self-declaration according to the above-mentioned model of attachment 'B'.

The above mentioned declarations drawn up according to the model of attachment 'B' may be used by Italian citizens and also by citizens of the EU.

The declarations according to the above-mentioned articles of the D.P.R. 28th December 2000, no. 445, may be used by non-EU citizens, if it is necessary to proof conditions, facts and personal qualities certifiable or attestable by public or private Italian bodies or bodies of the EU, without prejudice of special provisions in laws and regulations concerning immigration matters and the condition of foreigners. If the declarations according to the above-mentioned articles of the D.P.R. 28th December 2000, no. 445 are used in other cases than the above mentioned, the winner of the procedure has to submit, before the employment, the certificates as per paragraph 7.

- 3) The curricula and the lists mentioned in letters e) and f) of paragraph 1 of the present article must be signed and dated in the last page.
- 4) No qualification sent to this Administration will be returned.
- 5) The sending of the publications does not enable to correct the missed or late submission or mailing of the application for participation in the selection.
- 6) Without prejudice to the exceptions expressly provided by law, the above-mentioned attachment 'B' may further be used by the candidate to declare standings, facts and personal qualities of her/his direct knowledge, not expressly indicated in art. 46 of the D.P.R. 28th December 2000, no. 445.
- 7) With regard to non-EU citizens, the certificates issued by the competent Authorities of the country the person belongs to, must be in accordance with the provisions in force in those countries and must also be legalized by the competent Italian consular authorities.
- 8) With regard to conditions, facts and personal qualities self-certificated by the candidates for the present selection procedures the University has the possibility to exercise appropriate checks, also random ones, regarding their truthfulness.

In case of mendacious declaration the candidate, further than being excluded from the selection procedure, will be denounced according to the Criminal Code and the special laws regarding the matter, according to the provisions cited in art. 76 of the D.P.R. 28th December 2000, no. 445.

- 9) The qualifications may be produced in their original language if it is one of the following: Italian, French, English, German and Spanish.

It is in the authority of the Commission of selection to request the candidates integrations of the qualifications submitted in French, English, German or Spanish language, by forwarding the correspondent translation in Italian.

The translation in Italian language must be accompanied by a substitutive declaration of the deed of notoriety where the candidate, according to art. 47 of the D.P.R. 28th December 2000, no. 445, certifies the conformity of the translated text with the original (see attachment 'B').

- 10) Any qualifications drawn up in a language different than Italian, French, English, German and Spanish, submitted by Italian, EU or non-EU citizens, must be enclosed, according to paragraph 3 of Art. 33 of the D.P.R. 28th December 2000, no. 445, the correspondent Italian translation, which is certified conform to the original text by the competent diplomatic or consular representation or by a official translator.

The qualifications drawn up in a different language than those above mentioned, in case of lacking translation, will not be assessed by the Commission of selection.

## **Art. 5**

### *Sending of the publications*

- 1) The publications must be submitted together with the application.
- 2) If the applicant forward more publications as foreseen in the art. 1, the Commission of selection assess

only the maximum number in the order indicated by the applicant.

- 3) Publications will only be evaluated when they can be traced in public catalogues as publications.
- 4) Together with the publications, there must be enclosed a correspondent numbered list, signed and dated at the last page. The Publications must be mentioned in chronological order within each category following the International Standard for bibliographic references with DOI whenever possible. With multiple authorship, if one is the main author, that author's name appears in *Italics*. In addition, in the left-hand margin please star (\*) what you consider were especially significant publications. Where relevant, citation index and impact of journal.
- 5) Publications handed in or sent after the final term as indicated in paragraph 1 of the present article cannot be considered by the Commission of selection.
- 6) For the present selection procedure as provided in art. 1 of the present call the print extracts and the works which, at the moment of the deadline of the call, have been subject to legal deposit according to the provisions of the law 15th April 2004, no. 106, put into effect with D.P.R. 3rd May 2006, no. 252 are considered assessable.
- 7) The publications, with no. 1 copy of the correspondent list attached, may be sent:
  - a) in original;
  - b) in certificated copy;
  - c) in photocopy or digital version. In that case a substitutive declaration of the deed of notoriety (to be drawn up according to the model of attachment 'B' and signed at the last page, with the production of a photocopy of an ID) must be attached, where the candidate, according to art. 47 of the D.P.R. 28th December 2000, no. 445, certifies the conformity of those produced with the original and indicates the author, the title of the work, the place and date of publication and the number of the work.
- 8) In case the candidate produces copies or digital versions of the publications declared conform to the originals:
  - a) for works printed in Italy it is also necessary to attest the date of deposit of the printing according to the law 15th April 2004, no. 106, put into effect with D.P.R. 3rd May 2006, no. 252;
  - b) for works printed abroad the date and place of publication must be indicated.
- 9) The publications may be produced in their original language if it is one of the following: Italian, French, English, German and Spanish.

It is in the authority of the Commission of selection to request the candidates integrations of the publications submitted in French, English, German or Spanish language, by forwarding the correspondent translation in Italian.

The translated texts must be produced in typewritten copies with the text printed in the original language and must be accompanied by a substitutive declaration of the deed of notoriety where the candidate, according to art. 47 of the D.P.R. 28th December 2000, no. 445, certifies the conformity of the translated text with the original (see attachment 'B').
- 10) The publications whose original language is different than Italian, French, English, German and Spanish must be translated in one of the above-mentioned languages.

It is in the authority of the Commission of selection to request the candidates integrations of the translations submitted in another language than Italian, by forwarding of a translation in Italian of the already translated text.

The translated texts must be produced in typewritten copies with the text printed in the original language and must be accompanied by a substitutive declaration of the deed of notoriety where the candidate, according to art. 47 of the D.P.R. 28th December 2000, no. 445, certifies the conformity of the translated text with the original (see attachment 'B').
- 11) For selection procedures concerning linguistic matters publications may be produced in the language or languages the selection procedure relates to, even if different of those indicated in paragraph 9 of the present article.
- 12) The publication must be produced in any case, even in case they have already been submitted by this or other Administrations for participation in other selection procedures.

- 13) The missed sending of the publications within the provided date is not considered as renunciation of participating in the selection procedure. Nevertheless, the Commission of selection assesses the candidate only on the basis of the curricula and can therefore not assess the scientific works even if they are personally known by its members.

The Commission of selection does not take into consideration publications not conforming to the required format or in different edition as those indicated in the application for participation in the selection procedure.

- 14) No scientific work sent to this Administration will be returned. Nevertheless, the candidates may reacquire its possess, except in case of pending controversy and according to the provision of the subsequent article 15, by going, personally or on behalf of a delegate, to the Personnel Office for the Teaching and Research Staff within the term of six months starting from the date of the Rector's decree of confirmation of the regularity of the records. After this term has passed it is in the power of the University to dispose freely of the material not withdrawn.

### **Art. 6**

#### *Exclusion from participation in the selection procedure*

- 1) The candidates are admitted conditionally to the selection procedures. Therefore exclusion through failing to meet the prescribed requirements is provided for with due decree of the Rector of the University at whatever stage of the procedure.
- 2) In particular, are excluded those:
  - a) presenting an application which is not signed;
  - b) presenting applications which, for any reasons, are not sent by post or consigned by the final deadline indicated in art. 5, paragraph 1 of the present call.

### **Art. 7**

#### *Renunciation of participation*

- 1) The renunciation of participation in the selection procedure (to be drawn up according to the model of attachment 'D') must be sent to the President of the Commission (e-mail: [personnel\\_academic@unibz.it](mailto:personnel_academic@unibz.it)) and, for information, to the person in charge of the procedure (e-mail: [personnel\\_academic@unibz.it](mailto:personnel_academic@unibz.it)).  
Renunciations which precede the formation of the Commission of selection must be sent exclusively to the person in charge of the procedure (e-mail: [personnel\\_academic@unibz.it](mailto:personnel_academic@unibz.it)).
- 2) Renunciation takes effect from the Commission's first meeting following the date of its receipt.
- 3) The absence of the candidate at the public discussion with the Commission of selection about the qualifications, the projects, the artistic production and the scientific production is considered implied renunciation to the selection procedure.

### **Art. 8**

#### *Commission of selection*

- 1) The Commission of selection is to be constituted of three professors of the first rank or of two professors of the first rank and of a professor of the second rank of universities in Italy or abroad.
- 2) The members of the Commissions of selection are appointed by the Rector after consultation with the Dean of the Department requesting the selection procedure.
- 3) The Commission of selection is appointed by special provision, to be published also on the University's web page.

The Commission of selection remains in charge for six months and may be renewed only once and for not more than four months.

In case the work has not been completed within the extended period, the Rector, with due provision, will start procedure for the replacement of the Commission or the members responsible for the delay, establishing at the same time a new term for the conclusion of the work.

- 4) The Commission of selection, for carrying out its meetings, may make use of telematic tools for collective work.

### **Art. 9**

#### *Selection of the candidates*

- 1) The selection is performed by a preliminary assessment of the candidates, with justified analytical judgment of the qualifications, the projects, the artistic production, the curricula and the scientific production, also included the doctorate thesis, in accordance with the criteria set out in M.D. 25th May 2011, no. 243.
- 2) The Commissions of selection perform a motivated assessment, followed up by a comparative assessment, referring to the specific competitive sector and to the profile defined exclusively through the indication of one or more disciplinary-scientific sectors, the curriculum vitae and the following duly documented qualifications of the candidates:
  - a) the possess of the qualification of Ph.D. or equivalent, or for interested sectors, a diploma of medical postgraduate specialisation, or equivalent, obtained in Italy or abroad;
  - b) eventual performance of university-level didactic activities in Italy or abroad;
  - c) documented performances of services regarding formation or research, by qualified public or private bodies in Italy or abroad;
  - d) performance of activity in clinical area relating to the disciplinary-scientific sectors requesting those specific competences;
  - e) project-activities regarding the disciplinary-scientific sector the selection procedure relates;
  - f) organisation, direction and coordination of national and international research teams;
  - g) ownership of patents related to those scientific-disciplinary sectors where it is provided;
  - h) participation, in quality of lecturer, at national or international conferences and conventions;
  - i) obtainment of awards and national or international recognitions for research activities;
  - j) diploma of European postgraduate specialisation recognized by international Board's, regarding the competitive sectors which have provided it.

The assessment of each above indicated qualification is made considering the significance it has, in order to the quality and quantity of the research-activity done by each candidate.

- 3) The Commission of selection, in order to perform the comparative assessment of the candidates, shall consider only publications or texts accepted for publication as provided by law in force, as well as essays integrated in collective works and articles published on magazines in paper or digital format with exclusion of internal notes or department relations. The doctorate thesis or equivalent qualifications are considered also in absence of this conditions.

The Commission of selection performs the comparative assessment of the scientific publications on the ground of the following criteria:

- a) originality, innovativeness, methodological accuracy and importance of each scientific publication;
- b) congruence of each publication with the competitive-sector the selection procedure relates to and with the profile defined exclusively through the indications of one or more disciplinary-scientific sectors, or with connected interdisciplinary topics;
- c) scientific relevance of the publication's editorial classification and their diffusion among the scientific community;
- d) analytical definition, also on the ground of the guidelines recognized by the related scientific community, of the candidate's individual contribution in case of participation at works in cooperation.

The Commissions of selection must also assess the total consistency of the scientific production of the candidate and its intensity and continuity, with exception of the periods, properly documented, of not voluntary renouncing of the research activity, particularly in relation to the parents role.

The Commissions of selection, in order to assess the publications, within the competitive sectors on international level where its use is recognized, make also use of the following indexes, referring the final date of presentation of the candidacies:

- a) total number of quotations;

- b) average number of quotations of each publication;
  - c) total "impact factor";
  - d) average "impact factor" of each publication;
  - e) combination of the previous parameters to increase the impact of the scientific production of the candidate (Hirsch index or similar).
- 4) Following the preliminary assessment, the candidates comparatively more meritorious, in an amount included from 10 to 20 per cent of their number and, in any case, not less than six applicants, are admitted to the public discussion with the Commission of selection of the qualifications, the projects, the artistic production and the scientific production, which may also assume the form of a seminar opened to the public. All candidates are admitted to the discussion if their number is equal or inferior to six.
- Following the discussion a score will be attributed to the qualifications, the projects, the artistic production and to each publication submitted by the admitted candidates .
- 5) The discussion may be performed also by videoconference, if the commission of selection approves it.
  - 6) The oral examination, if provided, is aimed to verify the adequate knowledge of the teaching languages of the University and is being held in the language/s indicated in Art. 1 of the present call and will take place contemporaneously with the discussion.
  - 7) The date/s of the public discussion with the Commission of selection of the qualifications, the projects, the artistic production and the scientific production will be communicated to the parties concerned in time.
  - 8) In order to sustain the discussion, the candidate must be equipped, with the exclusion of others, of one of the following currently valid documents of recognition provided in Art. 35, paragraph 2 of the D.P.R. 28th December 2000, no. 445: identity card, passport, driving license, railway record-book, postal card, firearms license. The mentioned documents must contain a recent photograph of the candidate and her/his signature be authenticated by a mayor or a public notary in order to sustain the discussion.
  - 9) At the end of the procedures, the Commission of selection identifies a winner and compiles the merit ranking of the suitable candidates valid until the work starting date of the winner.
- The Commission of selection gives communication of the record containing the final merit ranking to the person in charge of the procedure for the subsequent measures.
- 10) From the date of the measure of approval of the acts the term for lodging possible petitions is coming into force.
  - 11) In case procedural errors are discovered, the records with due provision will be returned to the Commission of selection for regularization within a final term indicated in the measure.
  - 12) The results of the selection will be made public also telematically on the web page of the University.
- The results of the selection will be communicated by e-mail or by post to the winners by the Personnel Office for the Teaching and Research Staff.
- 13) The Department calling the selection procedure puts forward the proposal of call-up with a vote of the absolute majority of the professors of the first and second rank.
- The proposal is approved by decree of the President of the University Council.

### **Art. 10**

#### *General conditions of the contract, duration of the contract, causes of resolution*

- 1) The contract with the researcher has to contain a fixed time-limit and a fixed duration also in relation to the fulfillment of the research program.
- 2) The fixed-term contract does not confer rights for access to the University staff.
- 3) The employment relationship may be resolved by voluntary resignation, with previous written communication addressed to the Rector and to be sent to the Personnel Department of teaching staff and researchers of the Faculty the researcher belongs.

In that case the researcher is obliged to observe a 30 calendar day notice, which starts from the receipt of the resignation letter at the Personnel Department of teaching staff and researchers. In case of



written consent of the responsible of the research project/of the responsible of the Department concerned, the notice may not be observed.

- 4) The employment relationship may be resolved according to the provisions of the Civil Code.

### **Art. 11**

#### *Rights and duties of the researchers*

- 1) The total annual commitment for the performance of didactic activities, of integrated didactic activities, of organizational activities (for example the organization of scientific events), of administrative support of the Faculty and service didactic to students amounts to a minimum of 350 hours and to a maximum of 390 hours or 540 hours for the performance of specific project activities requesting further assistance to the students in full time regime and to a minimum of 200 hours and to a maximum of 292,5 or 405 hours in part-time regime.
- 2) For the purpose of financial reporting of the research projects, the notional quantification of the annual research activities, didactics, integrated didactics, organizational activities, administrative support of the Faculty and service didactic to students, amounts to 1.500 hours per year for full time researchers and 750 hours for part-time researchers.

The researcher must annotate all hours in a special register.

- 3) The mentioned hours of didactics are composed of:
  - a) teacher-centered didactic activity (lessons, exercises, laboratories) from a minimum of 60 hours and to a maximum of 120 hours per academic year, if justified by didactic reasons of the faculty; for the part-time of 75 % of that minimum threshold (45 hours) per academic year;
  - b) preparation of didactic material;
  - c) orientation and assistance of the students and the assessment of their knowledge;
  - d) performance of other subsidiary or integrated didactic activities (for example the activity of project assistance, tutorial);
  - e) organizational activities (for example the organization of scientific events);
  - f) administrative support of the Faculty.
- 4) The researcher agrees the modalities on how to perform his/her activities with the responsible of the research project or, in case the latter is not provided, the responsible of the Faculty concerned.
- 5) Annually and at the end of the contract the researcher must submit a short paper containing the results of the research activity performed and the results attained at that date by the Faculty he/she belongs to.

The final report at the end of the contract must be analytical and detailed and must be submitted within 45 days preceding the end of the contract. In case there is a responsible of the research project, the report has to be endorsed and commented by the latter.

- 6) The researcher has to be at the University four days a week.

### **Art. 12**

#### *Incompatibility, compatibility, trial period, permission for external appointments*

- 1) The recruitment in quality of researcher is incompatible with:
  - a) other employment relationships;
  - b) the enjoyment of the research grant;
  - c) the research doctorate, if related with the grant of a scholarship;
  - d) post-degree or post-doctorate scholarships or other kind of granted scholarships;
  - e) collaboration contracts for remuneration regarding didactics and research conferred by the University.

In case the candidate covers other offices or jobs, he/she is obliged to attach a declaration specifying the kind of activity he/she is practicing.

- 2) The recruitment in quality of researcher is compatible with

- a) collaboration contracts for remuneration regarding didactics and/or research conferred by other universities or institutes in Italy or abroad, by approval of the responsible of the project/area of research and of the Rector;
  - b) occasional lectures and seminars that do not require approval in accordance with the Regulation regarding the incompatibilities and authorizations for the teaching and research staff.
- 3) The employees of the Civil Service must be temporarily relieved of their duties, without benefits or social security and welfare contributions, for the whole duration of the contract, or to be put in position of temporary staff, if that position is provided by the rules he/she belongs.
  - 4) For employees of public administrations, whether with fixed-term or open-ended contract, if resulting winner in the selection procedure, the incompatibilities provided by existing legal provisions and by the concerned collective agreement remain in force.
  - 5) The researcher is subject to a trial period of 3 months of effective service starting from the day of hiring.
  - 6) For the authorization system the relevant legal provisions are applied.

### **Art. 13**

#### *Economic treatment and social security*

- 1) The annual gross remuneration amounts to 42.000. Euro.  
 In the event that the "scientific allowance" is awarded in accordance with the relevant University regulations in force, the aforementioned annual gross salary shall be increased by the amount of the bonus. The research bonus, if awarded, shall be applied as from the start date of employment, also in instances in which the evaluation of the Researcher's previous research and teaching activities is conducted after the start date.  
 The hourly compensation for any additional teaching duties performed by the Researcher shall be governed by the regulations in force at the beginning of the academic year in which the additional teaching duties are performed and in accordance with all restrictions provided by those regulations.
- 2) It is intended that, for legal effects, the relation has to be qualified as dependent employment relationship, therefore the fiscal, charitable and social security disciplines provided for incomes from employment are applicable.

### **Art. 14**

#### *Return of publications*

- 1) Candidates declared not eligible may withdraw, at their own expense, the publications submitted to this University within six months from the date of the Rector's decree of confirmation of the regularity of records. Once the term has passed the University keeps the material for its own necessities, disclaiming liability towards the candidates.

### **Art. 15**

#### *Protection of personal data*

- 1) With reference to the provisions of the European Regulation 2016/679, the Free University of Bozen-Bolzano, as data controller of this selection procedure, informs that the data contained in the application documents will be used exclusively for the implementation of this selection procedure and the possible conclusion of the contract (see enclosed data protection instructions).

### **Art. 16**

#### *Person in charge of the procedure*

- 1) In accordance with the law 7th August 1990, no. 241, and with successive modifications and integrations the person in charge of the procedure of the present selection is Dr. Paola Paolini, Head of the Personnel

Office Academic Staff, Universitätsplatz 1 - Piazzetta Franz Innerhofer 8 - P.O.B. 276 - tel. +39 0471 011310, e-mail: [personnel\\_academic@unibz.it](mailto:personnel_academic@unibz.it) .

- 2) On the web page:  
<https://www.unibz.it/en/home/position-calls/positions-for-academic-staff/?group=16&year=2018>  
expressly dedicated to the selection procedures, are available all relating information, in particular the progress report of the Commission of selection's works as well as the relating deadlines.

**Art. 17**

*Referring provisions*

- 1) For anything that is not expressly considered in the present announcement, reference shall be made, where applicable, to the norms cited in the recitals of the present decree and any related laws in force.

Bozen-Bolzano, 06.12.2018

Decree no. 654/2018

THE RECTOR

Prof. Paolo Lugli

