

# FREE UNIVERSITY OF BOZEN-BOLZANO



# FREE UNIVERSITY OF BOZEN-BOLZANO RECTOR'S DECREE no. 280/2018

Selection procedures for the awarding of 10 fixed-time research assistant contracts for collaboration at research activity

# THE RECTOR

IN VIEW OF the Statute of the Free University of Bozen-Bolzano;

**IN VIEW OF** the law 30th December 2010, no. 240, stating "Provisions concerning the organization of universities, academic personnel and recruitment, as well as the delegation of the Government for providing incentives for the quality and efficiency of the university system", and in particular its art. 22 concerning the awarding of research assistant contracts for the performance of research activity;

**IN VIEW OF** the Ministerial Decree 9th March 2011, no. 102, determining the gross minimum amount of the research assistant contract advertised according to Art. 22 of the law 30th December 2010, no. 240;

**IN VIEW OF** the 'Regulation of the research assistant contracts according to Art. 22 of the law 240/2010, in force;

**IN VIEW OF** the 'Regulation concerning the remuneration of researcher and holder of research assistant contracts, in force;

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 18.04.2018, no. 79, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/05 (Forest management and silvicolture);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 16.05.2018, no. 110, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/13 (Agricultural Chemistry);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 18.04.2018, no. 81, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/15 (Food Technology);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 18.04.2018, no. 80, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/15 (Food Technology);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 18.04.2018, no. 82, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector BIO/03 (Environmental and applied botany);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 25.10.2017, no. 259, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-INF/04 (Systems and Control Engineering);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 18.04.2018, no. 83, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/10 (Thermal engineering and industrial energy systems);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 18.04.2018, no. 84, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/13 (Mechanics of Machines);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 16.05.2018, no. 111, requesting the awarding of one fixed-time research assistant contract for collaboration at research

activity in the disciplinary-scientific sector ING-IND/13 (Mechanics of Machines);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 18.04.2018, no. 85, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/16 (Manufacturing Technology and Systems);

**VERIFIED** that the fixed-time research assistant contracts for collaboration at research activity requested by the Faculty of Science and Technology enjoy the necessary financial backing;

# DECREES

### Art. 1

# Object of the selection procedures

The Free University of Bolzano, hereinafter referred to as University, announces 10 selection procedures for the awarding of 10 fixed-time research assistant contracts for collaboration at research activity for the faculty and disciplinary-scientific sector hereafter indicated.

### 1. Faculty of Science and Technology

III Session 2018

Number of places: 1

**PIS:** 133449 (TN2229) **CUP:** B76J17000370003

Supervisor: Prof. Giustino Tonon

Disciplinary-scientific sector: AGR/05 (Forest management and silvicolture)

Competition sector: 07/B2 (Science and technology of trees and forest ecosystems)

Title of research project: ALCH4 - Methane emissions from lakes in the Alpine region

**Description of the research activity:** The aim of the project is to quantify methane emissions of several natural and man made lakes at different elevations along a 2 degree latitudinal transect from the Trentino (Italy) over South Tyrol (Italy) to North Tyrol (Austria), using the eddy covariance method and newly available open-path methane analysers that are expected to yield high-quality, spatially representative methane emission estimates at sub-diurnal to seasonal time scales.

Eddy covariance methane flux data acquisition will be accompanied by measurements of a suite of potential driving forces that allow causal interpretation of flux data. Finally, the resulting data will be used to up-scale lake methane emissions to the entire Alpine region using a statistical approach.

Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity: Study title: Master Degree in Environmental sciences, or Forest Sciences, or Agricultural Sciences, or Chemical or Biological or Geological or Natural Sciences, obtained in Italy or other countries. Skill in the methodological techniques to analyze methane.

**Preferential title:** PhD in Scientific subjects within Environmental sciences, Forest Sciences, Agricultural Sciences, or Chemical, Biological or Geological Sciences, or equivalent foreign study title.

Type of selection: Selection by qualifications and test (oral interview)

The assessment criteria: To be defined by the examining Commission during the first meeting

**Criteria for determining the part of the candidate in publications with more than one author:** To be defined by the examining Commission during the first meeting

**Criteria for the evaluation for the interview**: To be defined by the examining Commission during the first meeting

Language of the exam: English

Duration of the exam: To be defined by the examining Commission during the first meeting

Object of the exam: Interview to test candidates' knowledge of the curricular expertise required

**Total minimum score necessary for admission to the oral exams**: To be defined by the examining Commission during the first meeting

**Total minimum score in order to declare the candidate suitable for the position:** To be defined by the examining Commission during the first meeting

Place of work: Bolzano-Bozen

The gross annual remuneration: Euro 22.000,00

Duration of the contract: 12 months

### 2. Faculty of Science and Technology

#### III Session 2018

#### Number of places: 1

**PIS:** for the first 6 months n. 134847 TN2205 LIFE-OPTIMAL, for the last 6 months n. 134848 TN2081 RHIZOPRO **CUP:** I54G13000080005 (LIFE-OPTIMAL), I52F16000560005 (RHIZOPRO)

Supervisor: Prof. Tanja Mimmo

**Disciplinary-scientific sector:** AGR/13 (Agricultural Chemistry)

**Competition sector:** 07/E1 (Agricultural Chemistry, Agricultural Genetics and Pedology)

**Title of research project**: OPTImised nutrients MAnagement from Livestock production in Alto-Adige (OPTIMAL2012) - Rhizosphere processes affect copper bioavailability in vineyard soils (RHIZOPRO)

#### Description of the research activity:

LIFE-OPTIMAL: The main objective of the project is to provide an innovative approach for the handling of the manure produced by livestock farming transforming it in a high quality solid and liquid fertilizer by anaerobic digestion. The advantages comprise a reduction of nitrogen/nitrates input to agricultural soils and a greenhouse gas emission reduction of ammonia.

The activities will focus on the evaluation of the solid fraction of the digestate; in particular the following activities are foreseen: a) pot experiments with model plants and plants of local interest evaluating the effect of the fertilizers deriving from the digestor on the soil quality and fertility; b) study of the mechanisms underlying nutrient acquisition using molecular approaches; c) field experiments in vineyards evaluating the effect of the fertilizers deriving from the digestor on the quality and fertility of the soil as well as on the wine effect of the fertilizers deriving from the digestor on the quality and fertility of the soil as well as on the wine quality.

RHIZOPRO: The main aim of the project is to comprehend the rhizosphere processes involved in plant Cu tolerance responses since they are the starting point to setup new sustainable agronomical practices aiming at counteracting the detrimental effects of Cu accumulation in agricultural and vineyard soils. The project will focus on the biological processes altered in response to Cu to properly manage soil Cu contamination, since it is essential to move beyond mere physiological or phenotype effects.

The following activities are foreseen:

- Assessment of the quali-quantitative composition of root exudates of selected plants in response to different levels of Cu in controlled conditions (hydroponics and soil conditions)
- Assessment of the microbial community in the rhizosphere and bulk soil of cu-contaminated soil grown plants (particular focus will be set on grapevines).
- Characterization of the biochemical mechanisms triggered by Cu toxicity in plants.

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity:

Master in Agricultural Sciences, Agricultural Biotechnology or in equivalent topics

The candidate must demonstrate adequate knowledge, as demonstrated by research activity as described above, both on the theoretical and technical-methodological level.

Preferential title: PhD in Agricultural Sciences or equivalent foreign study title.

Type of selection: titles and interview

The assessment criteria: To be defined by the examining Commission during the first meeting

#### **Criteria for determining the part of the candidate in publications with more than one author:** To be defined by the examining Commission during the first meeting **Criteria for the evaluation for the interview:** To be defined by the examining Commission during the first meeting

Language of the exam: italian

Duration of the exam: To be defined by the examining Commission during the first meeting

Object of the exam: To be defined by the examining Commission during the first meeting

**Total minimum score necessary for admission to the oral exams:** To be defined by the examining Commission during the first meeting

**Total minimum score in order to declare the candidate suitable for the position:** To be defined by the examining Commission during the first meeting

Place of work: Bozen - Bolzano

The gross annual remuneration: 22.000€ (11.000€ - LIFE-OPTIMAL, 11.000€ - RHIZOPRO)

Duration of the contract: 12 months

# 3. Faculty of Science and Technology

III Session 2018

Number of places: 1

PIS: 133112 (OIP005, STABEAT)

**CUP:** I52F16000540005

Supervisor: Prof. Matteo Scampicchio

**Disciplinary-scientific sector:** AGR/15 (Food Technology) – Pos. 1

Competition sector: 07/F1 (Food Technology)

Title of research project: "STABEAT - Stabilità dei prodotti trasformati a base di carne e latte"

**Description of the research activity:** The research activity aims to develop solutions to increase the stability of food products based on processed meat. The activities of the project include to:

(1) Design innovative formulations for the development of meat based products with reduced caloric and lipid intake;

(2) The characterization of the oxidative stability and chemical-physical properties of the developed products.

The experimental approach will be performed at the laboratories of the NOI Tech Park. This mainly involves the analysis by means of isothermal calorimetry together with the execution of a series of chemical assays for the determination of:

(a) degree of oxidation of the lipid component (analysis of peroxides, fatty acid profile by gas chromatography);

(b) composition of macronutrients by near-infrared analysis,

(c) antioxidant power (TBARS, DPPH);

(d) analysis of volatile organic compounds by direct injection mass spectrometry (PTRMS).

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity:

PhD in food technology or equivalent foreign study title.

Proven experience of analysis techniques using isothermal calorimetry, as well as proven experience in chemical analysis of food.

# Type of selection: Titles and interview

# The assessment criteria (max. 45 points):

PhD title - max. 30 points

Evaluation criteria:

- relevance of the title with the topic of research: 15 points
- Relevance of the title with the research sector: 15 points

Publications – max. 15 points

a) the order of names: first author, coordinator (max. 5 points)

b) impact of the journal on the scientific community (max. 10 points)

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

a) the order of names: first author, coordinator;

b) impact of the journal on the scientific community;

# Criteria for the evaluation for the interview (max. 55 points):

In the oral test will be evaluated

- The candidate's ability to motivate and justify the choice and content of the research topics;
- The methodological rigor;
- The clarity of presentation;
- The degree of knowledge of the subject being examined;
- The degree of mastery of research topics;
- The updated level of knowledge of the specific industry specification for which was banned the research grant;
- Knowledge of the language/-s referred to in the notice

#### Language of the exam: English

Duration of the exam: 30 minutes

#### **Object of the exam:**

a) discussion of the titles and publications;

b) discussion about the teaching, scientific and professional experiences of the candidate.

Total minimum score necessary for admission to the oral exams: 30/45

Total minimum score in order to declare the candidate suitable for the position: 70/100

Place of work: NOI TechPark (Bolzano-Bozen)

The gross annual remuneration: 24.300,00 €

Duration of the contract: 24 months

# 4. Faculty of Science and Technology

**III Session 2018** 

Number of places: 1

**PIS:** 133380 (DE2023) **CUP:** I53C17000020005

Supervisor: Prof. Matteo Scampicchio

Disciplinary-scientific sector: AGR/15 (Food Technology) - Pos. 2

Competition sector: 07/F1 (Food Technology)

**Title of research project**: INNOCELL - From food waste to bio-degradable products, exploring the innovative potential of microbial cellulose

#### Description of the research activity:

The aim of the research is to develop applications in the production and use of microbial cellulose obtained from food waste.

The activities of the project include to:

- (1) design reactors suitable for the development of microbial cellulose;
- (2) characterize the chemical and physical quality of the obtained cellulose and that of the residual liquid (byproduct).
- (3) develop and characterization of functional beverages obtained during cellulose production.

The experimental approach will be performed at the laboratories of the NOI Tech Park.

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity:

PhD in food technology or equivalent foreign study title.

Proven experience of analysis techniques using isothermal calorimetry, as well as proven experience in chemical analysis of food.

Type of selection: Titles and interview

#### The assessment criteria (max. 45 points):

PhD title - max. 30 points

Evaluation criteria:

- relevance of the title with the topic of research: 15 points

- Relevance of the title with the research sector: 15 points

Publications – max. 15 points

a) the order of names: first author, coordinator (max. 5 points);

b) impact of the journal on the scientific community (max. 10 points);

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

a) the order of names: first author, coordinator;

b) impact of the journal on the scientific community;

#### Criteria for the evaluation for the interview (max. 55 points):

In the oral test will be evaluated

- The candidate's ability to motivate and justify the choice and content of the research topics;

- The methodological rigor;
- -The clarity of presentation;
- The degree of knowledge of the subject being examined;
- The degree of mastery of research topics;
- The updated level of knowledge of the specific industry specification for which was banned the research grant;
- Knowledge of the language/-s referred to in the notice

Language of the exam: English

#### Duration of the exam: 30 minutes

#### **Object of the exam:**

- a) discussion of the titles and publications;
- b) discussion about the teaching, scientific and professional experiences of the candidate.

Total minimum score necessary for admission to the oral exams: 30/45

#### Total minimum score in order to declare the candidate suitable for the position: 70/100

Place of work: NOI TechPark (Bolzano-Bozen)

The gross annual remuneration: 21.900,00 Euro

Duration of the contract: 24 months

# 5. Faculty of Science and Technology

III Session 2018

#### Number of places: 1

**PIS:** 133878 (BW2066) **CUP:** I82F16000470005

Supervisor: Prof. Stefan Zerbe

Disciplinary-scientific sector: BIO/03 (Environmental and applied botany)

#### **Competition sector:** 05/A1 (Botany)

Title of research project: UPAS - Unlocking the potential of social agriculture in South Tyrol

**Description of the research activity:** UPAS will give an insight into the current situation of social agriculture in South Tyrol and the Alps and point out perspectives for their further development, taking into account new potential actors and offers. With UPAS, interdisciplinary research at unibz is strengthened by pursuing interdisciplinary and transdisciplinary approaches to complex eco-social issues, with the aim of structurally accompanying social, socio-political and economic processes of eco-social transformation.

The scientist with a natural science education will focus on linking social agriculture with the goals of ecologically sustainable land-use and landscape development in order to identify and develop the potential of eco-social agriculture in the Alps. Against the background of the current land-use change, eco-social agriculture can offer a solution to a combination of social concerns and the preservation or restoration of the mountain cultural landscape, both locally and regionally. In doing so, the actors and stakeholders have to be identified, the current activities and potentials of eco-social agriculture analyzed and best practice examples identified. As an example, beekeeping can be viewed in both, rural and urban areas; therefore, the focus is on the importance of bees in eco-social agriculture.

This subproject will answer the following questions in close cooperation with the sociological sub-project:

- To what extent does social agriculture also offer perspectives for ecologically sustainable development, biodiversity and other ecological concerns, and can thus be described as eco-social?
- Which actors can be identified?
- How can beekeeping support social farming and environmental education, and what is the target of this environmental education and what job opportunities are there?
- How can the target groups in social agriculture be engaged in landscape management and restoration projects and how can farms be characterized in this context?

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity:

- MSc in Biology, Ecology, Landscape Ecology, Agriculture, Ecosystem Restoration, Environmental Management, Environmental Education or related fields
- Experiences in interdisciplinary research
- Capacity in cross-disciplinary thinking
- Experiences in cooperation or interaction, respectively, with stakeholders
- Very good knowledge in Italian and/or German (proofed within the CV)

**Preferential title:** PhD in natural sciences (ecology, agricultural science or similar) or equivalent foreign study title.

#### Type of selection: Titles and oral examination

#### The assessment criteria (max. 50 points):

- Master's Degree mark (max. 5 points)
- Knowledge of entomology, agriculture (max. 10 points)
- Experience in interdisciplinary cooperation (max. 15 points)
- Number and quality of publications (max. 20 points)

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

#### Criteria for the evaluation for the interview:

- Communication capacity
- Presentataion of the scientific curriculum
- Capacity to formulate a research question
- Knowledge of the German and/or Italian language

#### Language of the exam: English, Italian and/or German

### Duration of the exam: 45 minutes

#### **Object of the exam (max. 50 points):**

- scientific curriculum
- ecology, apiculture
- agriculture and forestry in mountain regions
- interdisciplinarity
- open questions

#### Total minimum score necessary for admission to the oral exams: 30

#### Total minimum score in order to declare the candidate suitable for the position: 60

#### Place of work: Bozen

#### The gross annual remuneration: 21.767,00 Euro

**Duration of the contract:** 12 months: the duration can be extended by up to 8 months if there is a need for it to conclude the research project, depending on a positive evaluation of the work delivered and on the verified availability of the necessary funds.

# 6. Faculty of Science and Technology

#### III Session 2018

**PIS:** 127292 **CUP:** /

Supervisor: Prof. Karl von Ellenrieder

Disciplinary-scientific sector: ING-INF/04 (Systems and Control Engineering)

Competition Sector: 09/G1 (Systems and Control Engineering)

**Title of research project:** Development of Mobile Robots and Lab Facilities to Support Field Robotics Research

**Description of the research activity:** The effort will involve research in support of the overall goal of developing field robot platforms and systems:

- Electromechanical design of mobile robot platforms
- Basic electronics
- Dynamic modeling and simulation (e.g. in Matlab and Simulink)
- Low-level control
- Field testing

Publication of scholarly results and assistance with proposal writing on topics in robotics, in particular field robotics.

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for research activity:

- PhD or equivalent in:
  - 1) academic discipline ING-INF/04 (Systems and Control Engineering); or

2) a related 09/A field, such as Mechanical Engineering, Aeronautical or Aerospace Engineering, Ocean/Marine Engineering coupled with a strong educational and research background in ING-INF/04 topics.

- Experience with the electromechanical design
- Experience in Dynamic modeling and simulation
- Experience performing experimental robotics work

The gross annual remuneration: 24.965,00 Euro

Number of places: 1 (one)

**Duration of the contract:** 12 months, with possible contract extension of 12 months given the previous positive evaluation of the performed activity and the determination of the availability of the relating budget.

Type of selection: Degrees and exam

#### Language of the interview: English/Italian

#### The assessment criteria:

Academic qualifications: up to a maximum of 55 points:

- Possession of a PhD degree (or equivalent, obtained in Italy, or abroad) in a field consistent with this announcement (max. 20 points);
- max 10 points for final marks on the master degree:
  - up to 83/110 = 0 points;
  - -88/110 = 3 points;
  - -94/110 = 5 points;
  - -99/110 = 8 points;
  - -108/110 = 10 points.
- Experience (professional or project) in the areas of electromechanical systems design, robotics and automatic control (max. 10 points);
- Research activities (e.g. research grants at the university level or research positions at major research institutions) in robotics/unmanned vehicle systems (max. 10 points)
- Participation as a speaker at national and international conferences (max. 5 points)

Publications: Evaluation criteria include: originality; scientific significance; diffusion within the scientific community; the number of authors; and congruency of the methods employed in the publications to the research field and the sector. (max. 20 points).

# 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 will be considered equally weighted.

# Criteria for the evaluation for the interview: Maximum of 25 points:

In the oral exam the following points will be evaluated:

- The ability of the candidate to justify own solutions and results of the research activities
- The level of knowledge of the announced scientific-disciplinary sector
- Italian and English language skills

#### Maximum duration of the interview: 1 hour

#### **Object of the interview:**

a) Knowledge of electromechanical design techniques for robots and/or unmanned vehicles

- b) Knowledge of Dynamic modeling and simulation techniques for robots and unmanned vehicles
- c) Knowledge of Automatic Control Techniques
- d) Knowledge of techniques for experimental robotics work
- e) Experience in lab organization and management

# Score to attribute to the evaluation, respectively, of the qualifications, of the publications and of the interview: 100

Minimal score which is necessary for admission to the oral exam: 50

Total minimum score in order to declare the candidate suitable for the position: 65

Place of work: Bolzano - Bozen

# 7. Faculty of Science and Technology

III Session 2018

Number of places: 1

**PIS:** 133417 (TN2226) **CUP:** I52F17000040005

Supervisor: Prof. Marco Baratieri

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

**Competition sector:** 09/C2 (Thermal sciences, energy technology and building physics)

**Title of research project:** FlexiFuelGasControl - Increased fuel flexibility and modulation capability of fixedbed biomass gasifiers by means of model based control

**Description of the research activity:** Development of thermodynamic gasification models to be implemented in real system control algorithms. Experimental validation of the developed control strategies and algorithms versus data obtained from laboratory and demo real scale gasification plant.

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity:

- Master Degree in Environmental-, Civil-, Energy-Engineering, or equivalent title.
- Proven experience in the development of thermodynamic gasification models and in the design and monitoring of pilot systems for the thermochemical conversion of biomass.
- Proven experience in the use of lab equipment, in particular in gas, tar and char analysis.

**Preferential title:** PhD in the Engineering field or equivalent foreign study title.

Type of selection: Based on qualifications

#### The assessment criteria (max. 100 points):

- Research Doctorate consistent with the sector for which the research fellowship is activated (max. 15 points)
- Degree of Graduation (max. 15 points)
- Publications: the total number of publications, their quality and their relevance to project research activities will be evaluated (max. 40 points)
- Research experiences in the project area; Qualifications linked to the service, contracts, scholarships and assignments in national, foreign or international research organizations, or at private institutions or consortia that carry out duly certified research activities, whit documented date and duration of the activity, as well as other titles, duly documented, suitable to qualify the candidate's professionality. (max. 30 points)
- Specialization diplomas; Post-graduate courses (max. 10 points)

#### **Criteria for determining the part of the candidate in publications with more than one author:** It is assumed that candidates contribute equally

Total minimum score in order to declare the candidate suitable for the position: 40/100

Place of work: Bolzano

The gross annual remuneration: 22.000,00 euro

Duration of the contract: 12 months

8. Faculty of Science and Technology

III Session 2018

Number of places: 1

**PIS:** 133775 (TN2803) **CUP:** I53C17000090005

Supervisor: Prof. Renato Vidoni

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

Competition sector: 09/A2 (Mechanics of Machines)

Title of research project: Mech4SME<sup>3</sup>: Mechatronics for Smart Maintenance and Energy Efficiency Enhancement

#### Description of the research activity:

- I. Development and integration of energy-efficient techniques and technologies feasibly applicable to robotic and automation systems.
- II. Development and integration of proactive maintenance techniques and technologies feasibly applicable to robotic and automation systems
- III. Dynamic multi-body modeling and simulation (e.g. in Adams, Matlab, ...)
- IV. Publication of scientific results and assistance with proposal writing on topics related to the research project.

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity:

Master of Science in mechanical, mechatronics engineering or equivalent title.

Educational and research background in ING-IND/13 topics.

Experience in Dynamic modeling and simulation of robots, mechanisms and automatic machines.

Experience in software development for mechatronic systems

Preferential title: PhD in mechanical, mechatronics, industrial engineering, or equivalent foreign study title.

Type of selection: Titles and exam

#### The assessment criteria (max. 75 points):

- Possession of a PhD degree (or equivalent, obtained in Italy, or abroad) in a field consistent with this announcement (max. 5 points);
- max 10 points for final marks on the master degree:
  - up to 94/110 = 0 points;
  - 99/110 = 3 points;
  - -103/110 = 5 points;

- 108/110 = 8 points;

- > 108/110 = 10 points.
- Experience (professional or project) in the areas of: (functional) design of electromechanical systems, mechanics of machines, robotics and mechatronics (max. 10 points);
- Research activities (e.g. research grants at the university level or research positions at major research institutions) in mechanics of machines/robotics/mechatronics (max. 20 points)
- Participation as a speaker at national and international conferences (max. 5 points)

Publications: Evaluation criteria include: originality; scientific significance; diffusion within the scientific community; the number of authors; and congruency of the methods employed in the publications to the research field and the sector. (max. 25 points).

#### 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 will be considered equally weighted.

#### Criteria for the evaluation for the interview:

In the oral exam (max. 25 points) the following points will be evaluated

- The ability of the candidate to justify own solutions and results of the research activities (max 10 points)
- The level of knowledge of the announced scientific-disciplinary sector (max 10 points)
- English and Italian language skills (max 5 points)

#### Language of the exam: English/Italian

Duration of the exam: 1 hour

**Object of the exam:** Discussion of professional qualifications and research activities

Total minimum score necessary for admission to the oral exams: 45

Total minimum score in order to declare the candidate suitable for the position: 60 / 100

Place of work: Bolzano-Bozen

The gross annual remuneration: 24.000,00 euro

Duration of the contract: 1 year

# 9. Faculty of Science and Technology

III session 2018

Number of places: 1

**PIS:** 135281; Cost Center TN2091 (old PIS 13033 for unsucessfull call is in process of being closed ) **CUP:** I52F17001380005

Supervisor: Dr.-Ing. Erich Wehrle

Disciplinary-scientific sector: ING-IND/13 (Applied Mechanics)

Competition sector: 09/A2 (Applied Mechanics)

**Title of research project:** doloMULTI - Design Of Lightweight Optimized structures and systems under MULTIdisciplinary considerations through integration of MULTIbody dynamics in a MULTIphysics framework.

#### Description of the research activity: This research activity includes

- Development and implementation of multibody analysis for design optimization in Kratos Mulitphysics
- Sensitivity analysis with respect to geometric and materials design variables
- Investigation and benchmarking with test examples

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity:

Master of Science in mechanical, aerospace, civil engineering, mechatronics or equivalent foreign study title.

**Preferential title:** PhD in mechanical, aerospace, civil engineering, mechatronics or equivalent foreign study title.

#### Type of selection: Titles and exam.

#### The assessment criteria:

- Possession of a PhD degree (or equivalent, obtained in Italy, or abroad) in a field consistent with this announcement (max. 5 points);
- max 10 points for final marks on the master degree:
- up to 94/110 = 0 points;
- 99/110 = 3 points;
- 103/110 = 5 points;
- 108/110 = 8 points;
- > 108/110 = 10 points.
- Experience (professional or project) in the areas of: design of structures and mechanical systems, multibody dynamics and optimization (max. 10 points);
- Research activities (e.g. research grants at the university level or research positions at major research institutions) in design of structures and mechanical systems, multibody dynamics and optimization (max. 20 points)
- Participation as a speaker at national and international conferences (max. 5 points)
- Publications: Evaluation criteria include: originality; scientific significance; diffusion within the scientific community; the number of authors; and congruency of the methods employed in the publications to the research field and the sector. (max. 25 points).

#### 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 will be considered equally weighted.

#### Criteria for the evaluation for the interview:

In the oral exam the following points will be evaluated

- The ability of the candidate to justify own solutions and results of the research activities (max 10 points)
- The level of knowledge of the announced scientific-disciplinary sector (max 10 points)
- English language skills

#### Language of the exam: English

#### Duration of the exam: 1 hour

**Object of the exam:** Verification of the relevant knowledge for the research topics described above and discussion of the titles.

#### Total minimum score necessary for admission to the oral exams: 45

Total minimum score in order to declare the candidate suitable for the position: 60/100

Place of work: Bozen / Bolzano

The gross annual remuneration: 24.000,00 € per annum

Duration of the contract: 12 months

#### 10. Faculty of Science and Technology

III session 2018

Number of places: 1

**PIS:** 133294, OIP002 **CUP:** I52F16000880005

Supervisor: Prof. Dominik Matt

**Disciplinary-scientific sector:** ING-IND/16 (Manufacturing Technology and Systems)

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

**Title of research project:** Connectivity and Collaborative Robotics in the Cyber-Physical Production System of the Smart Mini Factory lab

#### Description of the research activity:

Within the research area "Industrial Engineering and Automation (IEA)", the topic "Industry 4.0" is an important element. Based on the Smart Mini Factory Laboratory, the research project aims to integrate different cyber-physical elements into a holistic cyber-physical production system. The connectivity and interoperability of the individual elements plays a major role here.

Part of this project for the implementation of connected intelligent CPS elements is also the integration of workstations for collaborative robotics and human-machine interaction. The cognitive abilities of these CPS elements are to be used to make the use of collaborative robots safer and to control them decentralized.

# Minimum curricular requirements necessary in order to carry out the research with details of the scientific and professional profile required for the research activity:

Research Doctorate in the field of Cyber-Physical Systems (CPS) (see point 13)

The project requires a proven scientific experience in the integration of cyber-physical elements in production systems and collaborative robotics. In addition, proven programming skills for the autonomous development of software tools for the control of production systems are required.

Type of selection: Qualification and test (oral interview).

#### The assessment criteria (max. 50 points):

Doctorate (Phd) in accordance with the sector for which the position is activated, with a maximum of 10 points. Objective evaluation criteria: Relevance of the title for the research topic

The final grade with up to 15 points is determined as follows:

Grade: max. 10 points

Curriculum: objective evaluation criteria: Relevance of study plan, relevance of the scientific contents of the thesis on the research topic and relevant research experiences: max. 5 points

Research or work experience with up to 20 points. Objective evaluation criteria:

- Research fellowship or other cooperation agreements or work experience in universities, research institutions or private institutions related to the research area concerned: maximum 15 points.
- Training courses, conferences or summer schools on research-related topics, max 5 points;

Publications with a maximum of 5 points: publications relevant for the research project: max. 5 points.

#### Criteria for determining the part of the candidate in publications with more than one author: author, coordinator

#### Criteria for the evaluation for the interview (max. 50 points):

- (a) Proven experience in cyber-physical systems
- (b) Experience in collaborative robotics
- (c) Knowledge of programming languages for independent programming

#### Language of the exam: English

Duration of the exam: 30 minutes

**Object of the exam:** Interview to assess the curricular requirements required.

Total minimum score necessary for admission to the oral exams: 25/50 points

Total minimum score in order to declare the candidate suitable for the position: 60/100 points

Place of work: Bozen-Bolzano

The gross annual remuneration: 29.000,00 Euro

Duration of the contract: 36 months

#### Art. 2

#### Requirements for admission

1) Candidates must have completed the requirements at the expiry date for submission of the applications for admission to the selection procedure.

The Commission of selection, for the sole purpose of the aims of the present selection procedure, will evaluate the equipollence of the candidate's qualification title conferred abroad. Italian citizenship is not required.

#### Art. 3

#### Accumulation prohibition

1) The research assistant contract may not be combined with awarded study grants, except those awarded by national or foreign institutions to integrate the research activity for stays abroad, and with other research assistant contracts awarded by other institutions.

#### Art. 4

#### Incompatibility and compatibility

- 1) The following cannot be holder of research assistant contracts:
  - a) the personnel of the University, of public research and experimentation institutions and bodies, of the Agency for the New Technologies, Energy and Sustainable Economic Development (ENEA) and of the

Italian Space Agency (ASI), as well as of institutions whose degree of scientific specialization has been recognized as equipollent to the qualification of research doctor following Art. 74, paragraph 4, of the DPR no. 382/1980;

- b) the personnel in service by public administrations other than those indicated in letter a), except in case of unpaid leave by that administration, for the period of length of the research assistant contract;
- c) those having family or kinship relation, up to the fourth degree, with a professor of the Department awarding the research assistant contract, with the Rector, the General Director or with a member of the University Council;
- d) those attending university courses (triennial university degree or university degree pre-reform regime), a specialist or magister degree, a research doctorate with grant or medical specialization, in Italy or abroad.
- 2) The research assistant contract is furthermore incompatible with other didactic contracts with Universities and institutes in Italy or abroad, except as provided in Art. 5, paragraph 3 of the 'Regulation of the research assistant contracts according to Art. 22 of the law 240/2010', and with other contracts for research activities conferred by the Free University of Bozen-Bolzano.
- 3) The conferral of a research assistant contract is compatible with a collaboration contract or an intellectual work contract for research activities awarded by other universities and institutes in Italy and abroad, by approval of the person responsible of the research project.

#### Art. 5

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

1) To participate in the present selection procedures 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 <u>https://www.unibz.it/en/home/position-calls/positions-for-academic-staff/?departments=270&group=18&year=2018</u>

#### within the 09.07.2018.

To participate in the selection procedure for the disciplinary-scientific sector **ING-INF/04 (Systems and Control Engineering)**, **Supervisor Prof. Karl von Ellenrieder**, 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 <u>https://www.unibz.it/en/home/position-calls/positions-for-academic-staff/?departments=270&group=18&year=2018</u>

#### within the **08.08.2018.**

2) The application, duly dated and signed at the last page, must be addressed to:

Free University of Bozen – Bolzano Personnel Office Academic Staff (call) *Piazza Università, 1 - C. P. 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 om Monday, Tuesday and Thursday from 2 p.m. to 5 p.m.) 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, 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.

The candidate is obligated to add to the application in paper form, a data carrier (memorystick or cd) 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 the awarding of two fixed-time research assistant contracts for collaboration at research activity" and accurately indicate the faculty, 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 own responsibility:
  - a) the date and place of birth;
  - b) the code of personal identification (fiscal code);
  - 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;
    not having been convicted of criminal offences and not having pending criminal suits (otherwise to indicate
  - g) not to exceed the superior limit of twelve years, also of non-continuous periods; therefore are considered the total duration of the contracts under Art. 22 (Research assistant contracts) and Art. 24 (fixed-time 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 of the present call;);
  - h) not to exceed the total duration of 6 years of the contracts under Art. 22 of the law 30th December 2010, no. 240 as amended (Research assistant contracts) including renewals and contracts between different universities/bodies, as well as the duration of the contract of the present call (the period of a Research assistant contract during a PhD study place with grant does not count within the regular study period);
  - i) to have taken note of the provisions cited in the present call;
  - j) the content of the digital copies of all documents produced correspond to the content of the copies produced on paper;
  - k) the employment by a public administration according to letter b) of Art. 4 of the present;
  - not having family or kinship 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 Director or with a member of the University Council;
  - m) the declaration concerning the fulfillment of military duties (that declaration must be made only by male candidates);
  - n) 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;
  - to give the permission for the use of personal details that s/he has supplied to be processed as per Italian legislative decree 196/2003 for any procedures that are connected to this selection procedure and any contracts that may be drawn up as a consequence;
  - p) 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 immediately communicated in writing to this Administration.

7) The University accepts no responsibility for cases in which candidates are untraceable or when 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. 6

### Presentation of qualifications

- 1) Considered that, in accordance to the present call, by 'qualifications' are intended those scientific, didactic and artistic 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 copy of a valid identity document and the fiscal code;
  - 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) 1 photocopy of the list of the publications believed useful for the comparative assessment and drawn up in accordance with article 7 paragraph 3 of this call;
  - e) 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, letter c), of the present article, if issued by <u>Italian Public</u> <u>Administration</u>, 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 qualifications issued by <u>private corporation or abroad</u> 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 <u>non-EU citizens</u>, 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 d) and e) 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 certificate or diploma 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 consolar representation or by a official translator. The certificates or diplomas 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. 7

#### Sending of the publications

- 1) The sending of the application for participation must be enclosed by the forwarding of the publications.
- 2) Publications will only be evaluated when they can be traced in public catalogues as publications.

- 3) Together with the publications, there must be enclosed a correspondent list, signed and dated at the last page. The Publications must be mentioned in <u>chronological order</u> within each category following the International Standard for bibliographic references <u>with DOI</u> 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.
- 4) 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.
- 5) For the present selection procedure are considered assessable 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.
- 6) The publications, with 1 copy of the correspondent list attached, may be sent:
  - a) in original;
  - b) in certified copy;
  - c) in photocopy. 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.
- 7) In case the candidate produces copies declared conform to the originals according to paragraph 7, letter c), of the present article:
  - 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.
- 8) 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').

9) 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 text already translated.

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) For selection procedures concerning linguistic matters publications may be produced in the language or languages the selection procedure relates, even if different of those indicated in paragraph 9 of the present article.
- 11) The publication must be produced in any case, even in case they have already been submitted by this or other Administrations for participation at other selection procedures.

12) 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.

13) No scientific work sent to this Administration will be returned. Nevertheless, the candidates may require its possess, except in case of pending controversy and according to the provision of the subsequent article 22, by going, personally or on behalf of a delegate, to the Personnel Office Academic Staff within the term of six months starting from the date of the Rectoral 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. 8

# Exclusion from participation at the selection procedure

- 1) The candidates are admitted conditionally at 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, 9

# Renunciation of participation

 The renunciation of participation at the selection procedure (to be drawn up according to the model of attachment 'C') must be sent by fax to the President of the Commission of selection (fax number: +39 +39 0471 017009) and, for information, to the person in charge of the procedure.

Renunciations preceding the formation of the Commission of selection must be subsequently sent to the person in charge of the procedure (fax number: +39 0471 011309).

- 2) Renunciation takes effect from the Commission's first meeting following the date of its receipt.
- 3) The absence of the candidate at the interview is considered implied renunciation to the selection procedure.

#### Art. 10

#### Commission of Selection

- The assessment is to be carried out by a Commission of selection, to be constituted of three members belonging to university staff from Italy or abroad. The members of the Commission of selection must be active in the relevant research area or in the disciplinary area the research project or the research activity refers.
- 2) The members of the Commissions of selection are appointed by 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.
- 4) 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.

5) In case of selection procedures based on only qualifications the Commission of selection, for carrying out its meetings, may make use of telematics tools for collective work, on condition that all documentation submitted for the selection procedure is available in digital form.

# Art. 11

#### Selection of the candidates

- 1) The comparative assessment is based on qualifications and, if provided by the call, examination/s.
- 2) The interview, if provided, may be performed also by videoconference.
- 3) In case one or more examinations are provided, the dates will be notified to the candidates not less than 10 days before taking place, with indication of the time and place they are being held.

To sit the examination/s, 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 licence, railway record-book, postal card, firearms licence. The mentioned documents must contain a recent photograph of the candidate and her/his signature be authenticated by a mayor or a public notary.

4) At the end of its work, the Commission of selection, on the basis of the scores assigned for the qualifications, publications and the examinations, if provided, compiles the merit ranking of the suitable candidates. Minority positions should be recorded, indicating, in relation to the number of research assistant contracts to confer, the candidates which the research contracts are conferred.

# Art. 12

#### Publicity and transparency of the selection procedure

- 1) 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.
- 2) In case procedural errors are discovered, the records are returned with due provision to the Commission of selection for regularization within the term indicated in the provision.
- 3) The results of the assessment will be published also on the University's web page.

#### Art. 13

#### Validity of the ranking according to merits

- 1) The merit ranking lasts up to 14 months before the conclusion of the research project.
- 2) In case of withdrawal from the contract, the same will be conferred to the next suitable candidate in the concerned ranking list.

#### Art. 14

#### Formalization of the relationship

- 1) The University stipulates with the first candidate in the merit ranking a contract, regulating the forms and modalities of the collaboration activity and the allotment of the research assistant contract.
- 2) The contract may be renewed within the maximum term of 3 months after its expiry.
- 3) The research assistant contracts are in no way considered a dependent employment relationship and do not confer rights for access to the University staff.
- 4) The winner of the present selection procedure must fulfill the duties provided by the University regulation for the conferral of research assistant contracts.

A copy of the regulation is delivered to the holder of the research assistant contract at the stipulation of the contract.

- 5) The research activity the winner has to complete must have the following features:
  - a) temporally defined;
  - b) connected with the fulfillment of a research program or a stage of it;
  - c) autonomous performance, under the direction of the scientific responsible, of the program, without predetermination of working hours.

# Art. 15

#### Suspension of the research

1) The payment of the remuneration of the research assistant contract is suspended during the periods of absence for pregnancy, documented sickness, military service. In these cases, the duration of the relationship will be extended for the remaining period for the realization of the research project, starting from the date of cessation of the cause of suspension.

#### Art. 16

### Rights and duties of the assistant researchers

- 1) The holder of the research assistant contract undertakes research activities provided by the research programs adopted by the related Department. He/she may collaborate with students in research activities relating to his/her degree thesis, participate at examination commissions and perform formal and informal didactic exercises.
- 2) The holder of the research assistant contracts may participate at groups and at research projects of the University/the Departments. The performance of those research activities does not confer a right of payment of a separate compensation.
- 3) The holder of the research assistant contract may be allowed a limited teacher-centered didactic activity (lessons, exercises, laboratories) for a maximum of 60 hours per academic year, provided that this activity does not interfere with the research activities. The hours of teacher-centered didactic are separately remunerated according to the "*Regolamento tariffario per i docento a contratto, i supervisori e responsabili di tirocinio e i collaboratori linguistici*" in force. Teacher-centered didactic activity may be decide by the Department, upon consent of the research assistant contract holder and upon authorization of the person responsible of the research project.
- 4) The research assistant contract holder, in order to carry out the research activity, may use the facilities of the Department he/she belongs and make use of the services available to the researchers according to the regulations in force.
- 5) The research activity is performed at the Faculty concerned or elsewhere, if expressly authorized by the person responsible for the scientific activity the research assistant contract holder belongs. If the research assistant contract holder authorized to perform research activity externally must undertake duties in connection with the research, he/she has the right of refund of expenses according to the rules and conditions set out by the "Regulation concerning service missions of teaching and research staff".

#### Art, 17

# Person Responsible of the research activities of the research assistant contract holder and entrusted tasks

- 1) The Department the research assistant contract holder belongs nominates a professor or researcher or a fixed-time researcher as scientific responsible for the research activities, guiding and directing the research activities undertaken by the research assistant contract holder.
- 2) The person responsible of the research project must collect and assess the concise and the final relation. He/she further must report to the Responsible of the Department and to the Personnel Office Academic Staff the defaults of the contract holder, also in relation to possible suspensions of payments, except in case of grave default constituting cause of resolution by law of the contract.

3) The Department the research assistant contract holder belongs, at the conferral of the research contract and periodically, determines, on proposal of the scientific responsible and after having heard the interested person, the research programs and his/her relevant tasks.

### Art. 18

### *Control modalities, assessment of the activity performed by the research assistant contract holders and causes of resolution of the contract*

- 1) The holder of the research assistant contract must annually present a short paper about the research activity performed and the results attained, which, with the assessment of the person responsible of the research project attached, is sent to the presidency of the Department concerned.
- 2) The research assistant contract holder must also produce a detailed final relation explaining the performed activity and the results attained, which, with the assessment of the responsible of the project, is submitted, within 45 days preceding the end of the contract, to the presidency of the Department concerned.
- 3) The non-presentation of the reports within the provided terms causes the suspension of payment of the following installments.
- 4) In case the research assistant contract holder, after having started the research activity, does not continue it, regularly and continually, for the whole duration of the research assistant contract without justified reason or is responsible for grave and repeated misdemeanor, the procedure for resolution of the contract will be started.
- 5) The contract will be terminated in the cases provided by paragraph 6 with deliberation of the concerned Department.
- 6) The contract will be terminated in the following cases:
  - grave and proven misdemeanor of the research assistant contract holder, reported by the person responsible of the research project or by the responsible of the concerned Department;
  - unjustified missed beginning or unjustified delay of the activity;
  - unjustified suspension of the research activity for a period which is prejudicial to the research program;
  - grave violation of the incompatibility rules provided by the present Regulation.

#### Art. 19

#### Loss and withdrawal

- 1) Those not initiating the activity within the indicated terms lose the right for the research assistant contract.
- 2) Only delays due to grave health reasons or to *force majeure* duly proved are justified and admitted.
- 3) The holder of the research assistant contract may withdraw from the contract by observing a 30 (thirty) day notice. In case of written consent by the person responsible of the research project, the notice may not be considered.
- 4) Possible postponements of the date of beginning of the period of enjoyment of the research assistant contract may be awarded to winners proving to have to fulfill the military duties and to working mothers (legislative decree. no. 151/2001).

#### Art. 20

#### Attendance of research doctorate courses

- 1) The holder of the research assistant contract may attend research doctorate courses without scholarships even in supernumerary, without prejudice of getting through the admission tests.
- 2) The University Council, before the beginning of the academic year, after having heard the departments, determines, for each doctorate course, the maximum number of research assistant contract holders admitted to attend doctorate courses in supernumerary.

#### Art. 21

# Economic and fiscal treatment, social security

- 1) The amount of the remuneration is determined by the University Council, in respect of the minimum limits determined with Ministerial Decree.
- 2) The remuneration is paid in monthly installments. The monthly gross amount is determined by dividing the annual gross remuneration with the number of months of the contract's duration plus one.
- 3) Mission expenses will be taken from the fund of the person responsible of the research project.
- 4) The research assistant contract for collaboration at research activities under the present call is free of income tax. In relation to fiscal matters the provisions of Art. 4 of the law 13th August 1984, no. 476 with subsequent modifications and integrations are applied.
- 5) The University provides for the insurance covering in relation to risks of accidents at work and civil responsibility, applying the fiscal and social security disciplines provided by Art. 22, paragraph 6, of the law no. 240/2010.

### Art. 22

#### 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. 23

#### Protection of personal data

1) For information about the use of personal data, we refer to the data protection code in compliance with art. 13 of Legislative Decree no. 196/2003, attached to the present call.

#### Art. 24

#### Person in charge of the procedure

- In accordance with the law 7th August 1990, no. 241, the person in charge of the procedure of the present selection is Dr. Paola Paolini Head of the Personnel Office Academic Staff Piazza Università, 1 C.P. 276 39100 Bozen-Bolzano tel. +39 0471 011310, fax +39 0471 011309, e-mail: personnel\_academic@unibz.it.
- 2) On the web page <u>https://www.unibz.it/en/home/position-calls/positions-for-academic-staff/?departments=270&group=18&year=2018</u> expressly dedicated to the selection procedure are available all relating information about the progress report of the Commission of selection's works as well as the relating deadlines.

#### Art. 25

#### 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 preamble of the present decree and any related laws in force.

Bozen-Bolzano, 31.05.2018

Decree no. 280/2018

