

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

### **SELECTION PROCEDURES**

**for the conferral of**

**11**

**fixed-time RESEARCH ASSISTANT CONTRACT**

**for**

**COLLABORATION at RESEARCH ACTIVITY**

Rector's Decree

of 13.11.2019

no. 692/2019

# FREE UNIVERSITY OF BOZEN-BOLZANO

## RECTOR'S DECREE

### no. 692/2019

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Selection procedures for the awarding of 12 fixed-time research assistant contract 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 30.10.2019, no. 246/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/03 (Arboriculture);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 249/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/05 (Forest Management and Silviculture);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 248/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/05 (Forest Management and Silviculture);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 247/2019, requesting the awarding of 2 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/11 (General and Applied Entomology);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 253/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/11 (Building Physics and Building Energy Systems);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 254/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/11 (Building Physics and Building Energy Systems);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 251/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/11 (Building Physics and Building Energy Systems);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 252/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/11 (Building Physics and Building Energy Systems);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 250/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/13 (Applied Mechanics);

**IN VIEW OF** the deliberation of the Faculty Council of the Faculty of Science and Technology from 30.10.2019, no. 255/2019, requesting the awarding of 1 fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-INF/01 (Electronic Engineering);

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

## DECREES

### Art. 1

#### *Object of the selection procedure*

The Free University of Bolzano, hereinafter referred to as University, announces 11 selection procedures for the awarding of 11 fixed-time research assistant contract for collaboration at research activity for the faculty and disciplinary-scientific sector hereafter indicated.

### 1. Faculty of Science and Technology

**Number of places:** 1

**PIS:** 155327 (TN2256)

**CUP:** I54I18000080002

**Supervisor:** Prof. Massimo Tagliavini

**Disciplinary-scientific sector:** AGR/03 (Arboriculture)

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

**Title of research project:** Atmospheric boundary-layer modeling over complex terrain (ASTER)

**Description of the research activity:** The activity of the successful candidate will consist in:

- 1) actively contribute to the set up an experimental system of measurement of gas exchanges between the soil/vegetation and the atmosphere named "eddy covariance" in one of the main tree crops present in South Tyrol;
- 2) Running the equipment, record the data and organize them in spreadsheets;
- 3) Study the interactions between the crop, the aerodynamic conditions of the atmosphere and the exchange of CO<sub>2</sub> and water vapor. He/she will validate models using the "Bayesian Technique" and using programming languages like R;
- 4) Contribute to the writing of scientific reports and to a scientific publication for an international Journal. It is also expected that he/she will be able to successfully interact with the other units of the 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 Degree in Agricultural, or in Forest, or in Environmental sciences or in a related scientific area, obtained in Italy or other countries.

- Adequate knowledge about the research topics with special reference to water and cycles, and to the interaction between vegetation and lower atmosphere.

**Preferential title:** PhD or equivalent foreign study title in Agricultural, or in Forest or in Environmental sciences or similar.

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

**Assessment criteria (max. 70 points):**

Study titles score (max. 30 points):

- PhD coherent with the sector in which the grant is activated (max. 15 points)
  - Objective criteria for assessment:
    - Coherence with the disciplinary sector for which the grant is activated: 15 points;
    - Coherence with the Academic recruitment sector for which the grant is activated: 10 points;
    - Relevance of the title, obtained in other sectors, with the research topic: 5 points.
- Participation in doctoral courses related with the research topic: 2 points per year;
- Graduation grade (grades converted to Italian system):
  - 110 and 110 cum laude: 15 points
  - 105-109: 12 points
  - 100-104: 10 points
  - 95-99: 8 points
  - 90-94: 6 points
  - less than 90: 0 points.

Research (max. 10 points):

- Collaboration contract or scholarship at universities or research institutes for activities related to the considered research area, points 0.2 for each working activity month in Italy and 0.5 for each month at recognized foreign institutes;
- collaboration contract at private institutions or consortia for activities related to considered research area, points 0.1 for each month of working activity;
- Scientific presentations at national and international congresses: max. 5 points;
- Awards and prizes: max. 2 points.

Publications (max. 30 points)

Max. 10 points for publication.

Criteria:

- Originality, novelty and methodological rigor and relevance of each scientific publication;
- Consistency of each publication with the sector.
- Scientific relevance of editorial position of each publication and of its spread inside the scientific community.
- Personal contribution of the candidate in the collaborative works.

**Maximum number of publications, that will be evaluated: 10**

**Criteria for the evaluation for the interview:**

Knowledge about the research topic;

Expositive clarity;

Synthesis capacity;

Ability of giving the answers by means of scientific argumentations.

**Language of the exam:** English

**Duration of the exam:** 30 min

**Object of the exam (max. 30 points):**

The exam will cover:

- a) The discussion of candidates' titles and publications;
- b) The testing of candidates' knowledge of the curricular expertise required

**Total minimum score necessary for admission to the oral exams: 25/70**

**Total minimum score in order to declare the candidate suitable for the position: 55/100**

**Place of work:** Bolzano/Bozen

**The gross annual remuneration:** 24.100,00 Euro

**Duration of the contract:** 12 months. The contract may be extended for max. 12 months, whereas such an extension of the contract is necessary to complete the project and is subject to a positive assessment of the activity performed, as well as the availability of financial resources.

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

**Number of places:** 1

**PIS:** 155165 (TN2262) + PIS 155230 (TN2262)

**CUP:** I541I18000200001

**Supervisor/Supervisore/Supervisor:** Prof. Giustino Tonon

**Disciplinary-scientific sector:** AGR/05 (Forest Management and Silviculture)

**Competition sector:** 07/B2 (Science and Technology of trees and Forest ecosystems)

**Title of research project:** The Italian TREETALKER NETWORK: continuous large-scale monitoring of tree functional traits and vulnerabilities to climate change (ItTREEnet)

**Description of the research activity:** The research activity will deal with the monitoring of some functional traits of forest trees under a increasing levels of environmental stress of different nature, through a new device that will allow us to collect simultaneously data of tree growth, water transport and light absorption.

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

Researcher with PhD: PhD or equivalent foreign study title in ecological topics or a neighboring field

**Type of selection:** by titles

**Assessment criteria (max. 100 points):**

Academic degrees (max. 40 points):

- Doctoral research (PhD) on a topic related to the position: up to 30 points;
- Presentations at conferences: max 10 points.

Publications (max. 20 points):

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector and with the research activity;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

Research experience (max. 40 points):

Research experience acquired on the specific topic of the research project through contracts, scholarships in Research Institution and assignments in domestic corporations, international or foreign corporations, as long as the beginning and the duration of the collaboration is evidenced

**Maximum number of publications, that will be evaluated: 10**

**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 commission will evaluate the position of the candidate among the list of co-author (first, last or corresponding) and the number of co-authors.

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

**Place of work:** Bolzano-Bozen

**The gross annual remuneration:** 29.000 Euro

**Duration of the contract:** 24 months

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

**Number of places:** 1

**PIS:** 154774 (TN201G)

**CUP:** I54I19001020005

**Supervisor:** Dr. Maurizio Ventura

**Disciplinary-scientific sector:** AGR/05 (Forest Management and Silviculture)

**Competition sector:** 07/B2 (Science and Technology of trees and Forest ecosystems)

**Title of research project:** Effect of Increased N depositions on Soil microbial communities through DNA- and RNA-based techniques in mountain forest Ecosystems (INSIDE)

**Description of the research activity:** Management of the experimental site, application of experimental treatments to simulate increased N deposition on forests; measurement of the productivity and C fluxes in forest ecosystems.

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

Researcher with PhD: PhD or equivalent foreign study title in Forest Sciences, environmental sciences, or in a related scientific area.

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

**Assessment criteria:**

To be defined by the examining Commission in its first meeting.

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

To be defined by the examining Commission in its first meeting.

**Maximum number of publications, that will be evaluated: 10**

**Criteria for the evaluation for the interview:**

To be defined by the examining Commission in its first meeting.

**Language of the exam:** Italian

**Duration of the exam:**

To be defined by the examining Commission in its first meeting.

**Object of the exam (max. 10 points):**

The exam will cover;

- a) on the discussion of candidates' titles and publications;
- b) deepening the candidate's scientific and professional experience.

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

To be defined by the examining Commission in its first meeting.

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

To be defined by the examining Commission in its first meeting.

**Place of work:** Bolzano

**The gross annual remuneration:** Euro 24.000,00

**Duration of the contract:** 12 months

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#### 4. Faculty of Science and Technology

**Number of places:** 1

**PIS:** 155818 (TN2273)

**CUP:** I54I19001720003

**Supervisor:** Dr. Hannes Schuler

**Disciplinary-scientific sector:** AGR/11 (General and Applied Entomology) – Pos. 1

**Competition sector:** 07/D1 (Plant Pathology and Entomology)

**Title of research project** FIGHToplasma – Population genomics of factors influencing Phytoplasma transmission

**Description of the research activity:** Apple proliferation is a disease caused by phytoplasmas. The pathogen is mainly transmitted by psyllids of the genus *Cacopsylla*. The transmission efficiency varies between different *Cacopsylla* species as well as geographical regions. Factors that influence the transmission efficiency of phytoplasmas are currently not known.

Aim of this project is to investigate factors that cause the different transmission efficiency of phytoplasmas. In detail, interactions between the phytoplasma, the vector and its microbiome will be studied using various population genetic methods.

The following activities are planned:

- Genome sequencing of different insect species and populations
- Genome sequencing of different phytoplasma strains
- Genome sequencing of bacteria, present in the insect

**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's degree in Agricultural Sciences or Agricultural Biotechnology or equivalent foreign study title;
- The candidate must demonstrate experience in the field of population genetics of insects and in particular expertise in bioinformatics and in the analysis of Next Generation Sequencing data

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

**Type of selection:** Qualification and oral exam

**Assessment criteria:**

Academic degrees (max. 30 points):

- Master's Degree in Agricultural Sciences, Agrobiotechnology or equivalent foreign study title: max. 10 points;
- Masters (postgraduate certificates of a one/two years course program), postgraduate specialization courses, scholarships and research grants and awards, max. 5 points;
- Doctoral research (PhD) in Agricultural Sciences, Molecular biology or equivalent foreign study title up to a maximum of 15 points;

Publications (max. 40 points):

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

Research and practical experience (max. 20 points):

Research experience acquired on the specific topic of the research project through contracts, scholarships and assignments in domestic corporations, international or foreign corporations or at private institutions or companionships which perform attested research activity, as long as the beginning and the duration of the collaboration is evidenced as well as other qualifications that attest the evidenced professionalism of the candidate.

**Maximum number of publications, that will be evaluated: 10**

**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 the evaluation for the interview:**

The evaluation of the oral test comprehends:

- the methodological rigor
- the degree of knowledge of the subject matter of examination
- the degree of knowledge of research topics
- the level of knowledge update of the specific disciplinary sector for which the research grant has been tendered

**Language of the exam:** English

**Duration of the exam:** 40 minutes

**Object of the exam (max. 10 points):**

The exam will cover:

- a) on the discussion of candidates' titles and publications;
- b) deepening the candidate's scientific and professional experience.

**Total minimum score necessary for admission to the oral exams: 40**

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



**Place of work:** Bozen/Bolzano

**The gross annual remuneration:** 28.000€

**Duration of the contract:** 18 months. The contract may be extended until the end of the project, whereas such an extension of the contract is necessary to complete the project and is subject to a positive assessment of the activity performed, as well as the availability of financial resources.

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

**Number of places:** 1

**PIS:** 155819 (TN2273)

**CUP:** I54I19001720003

**Supervisor:** Dr. Hannes Schuler

**Disciplinary-scientific sector:** AGR/11 (General and Applied Entomology) – Pos. 2

**Competition sector:** 07/D1 (Plant Pathology and Entomology)

**Title of research project** FIGHToplasma – Population genomics of factors influencing Phytoplasma transmission

**Description of the research activity:** Apple proliferation is a disease caused by phytoplasmas. The pathogen is mainly transmitted by psyllids of the genus *Cacopsylla*. The transmission efficiency varies between different *Cacopsylla* species as well as geographical regions. Factors that influence the transmission efficiency of phytoplasmas are currently not known.

Aim of this project is to investigate factors that cause the different transmission efficiency of phytoplasmas. In detail, interactions between the phytoplasma, the vector and its microbiome will be studied using various population genetic methods.

The following activities are planned:

- Insect sampling
- Genetic characterization of different populations of insects and their microbes
- Transmission experiment of phytoplasmas by different insect species and populations

**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's degree in Agricultural Sciences or Agricultural Biotechnology or equivalent foreign study title;
- The candidate must demonstrate experience in molecular genetic methods and expertise in the collection and handling of insects.
- Driver's license B

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

**Type of selection:** Qualification and oral exam

**Assessment criteria:**

Academic degrees (max. 30 points):

- Master's Degree in Agricultural Sciences, Agrobiotechnology or equivalent foreign study title: max. 10 points;

- Masters (postgraduate certificates of a one/two years course program), postgraduate specialization courses, scholarships and research grants and awards, max. 5 points;
- Doctoral research (PhD) in Agricultural Sciences, Molecular biology or equivalent foreign study title up to a maximum of 15 points;

**Publications (max. 40 points):**

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

**Research and practical experience (max. 20 points):**

Research experience acquired on the specific topic of the research project through contracts, scholarships and assignments in domestic corporations, international or foreign corporations or at private institutions or companionships which perform attested research activity, as long as the beginning and the duration of the collaboration is evidenced as well as other qualifications that attest the evidenced professionalism of the candidate.

**Maximum number of publications, that will be evaluated: 10**

**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 the evaluation for the interview:**

The evaluation of the oral test comprehends:

- the methodological rigor
- the degree of knowledge of the subject matter of examination
- the degree of knowledge of research topics
- the level of knowledge update of the specific disciplinary sector for which the research grant has been tendered

**Language of the exam:** English

**Duration of the exam:** 40 min

**Object of the exam (max. 10 points):**

The exam will cover:

- a) on the discussion of candidates' titles and publications;
- b) deepening the candidate's scientific and professional experience.

**Total minimum score necessary for admission to the oral exams: 40**

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

**Place of work:** Bozen/Bolzano

**The gross annual remuneration:** 24.000 €

**Duration of the contract:** 18 months. The contract may be extended until the end of the project, whereas such an extension of the contract is necessary to complete the project and is subject to a positive assessment of the activity performed, as well as the availability of financial resources.

## 6. Faculty of Science and Technology

**Number of places:** 1

**PIS:** 155232 (TN2269)

**CUP:** I54I18000320007

**Supervisor:** Prof. Andrea Gasparella

**Disciplinary-scientific sector:** ING-IND/11 (Building Physics and Building Energy Systems) – Pos. 1

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

**Title of research project:** Mass Customization 4.0 – development and diffusion of competences and instruments for mass customization and tailoring for SME of smart living (ITAT1057 - MC 4.0)

**Description of the research activity:** The MC 4.0 project improves the innovation base of smart living SMEs to meet the new challenges of competition and industry 4.0. Local bases are created to increase their ability to meet the specific needs of individual customers at affordable costs (MC - Mass Customization) through digitized customization processes (4.0), which bring the customer closer to the SME production chain by lowering costs, speeding up time and ensuring product quality. The focus of the research will be on the field of smart living, which includes the building industry, energy management systems, household appliances, appliances for wellness and entertainment, home automation, furniture and security systems.

The research activities will concern the development of two thematic configurators: one for the choice of air conditioning devices and one for those of home automation, which will have the function of promoting through a platform B2C contacts between SMEs manufacturing Clusters and end users. The research activities will be carried out in collaboration with national and international partners. Specifically, the analysis of the main characteristics to be searched in the SMART LIVING configurators will be the subject of research, focusing in particular on the difficulties of representation of complex thermo-technical and acoustic knowledge, on the risks of unintentional diffusion of proprietary knowledge, on possible objections or excessively complex settings of the design engineers.

**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 (MSc or MA) (or final degree following the study conditions valid before the M.D. 509/99) or equivalent foreign study title in Engineering or Architecture or a neighbouring field.
- Scientific profile: proven research experience in the field of characterization of the energy behaviour of the building system and of the indoor environmental quality of the built environment.
- Language skills: Language certificate at level B2 for Italian according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker)."

**Preferential title:** PhD or equivalent foreign study title in Building Physics or a scientific field related to the research.

**Type of selection:** by qualifications

**Assessment criteria (max. 100 points):**

Academic degrees (max. 40 points):

- Mark of the final exam of Master's Degree: max. **15 points**;
- Masters (postgraduate certificates of a one/two years course program), postgraduate specialization courses, scholarships and research grants and awards, max. **10 points**;
- Doctoral research (PhD) thesis in **ING-IND/11: 15 points**.

Language skills (max 15 points):

- Language certificate at level C1 for Italian according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**;

- Language certificate at level C1 for German according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**;
- Language certificate at level C1 for English according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**.

Publications (max. 30 points):

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

Research and practical experience (max. 15 points):

Research experience acquired on the specific topic of the research project through contracts, scholarships and assignments in domestic corporations, international or foreign corporations or at private institutions or companionships which perform attested research activity, as long as the beginning and the duration of the collaboration is evidenced as well as other qualifications that attest the evidenced professionalism of the candidate.

**Maximum number of publications, that will be evaluated: 10**

**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.

**Total minimum score in order to declare the candidate suitable for the position: 35/100**

**Place of work:** Bolzano

**The gross annual remuneration:** 25.000 EUR

**Duration of the contract:** 12 months. The contract may be extended until the 30.11.2021, whereas such an extension of the contract is necessary to complete the project and is subject to a positive assessment of the activity performed, as well as the availability of financial resources.

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

**Number of places:** 1

**PIS:** 155234 (TN2270)

**CUP:** I54I18000310006

**Supervisor:** Prof. Andrea Gasparella

**Disciplinary-scientific sector:** ING-IND/11 (Building Physics and Building Energy Systems) – Pos. 2

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

**Title of research project:** The SENSHome Sensitive Home: Sensors for Special Environments. The house as normal as possible and as special as necessary (ITAT1088 - SENSHOME)

**Description of the research activity:** The research aims to study and develop monitoring and feedback systems for the construction of intelligent homes inhabited by people with reduced autonomy, in particular people with autism. The objective of the research is the development and implementation of a network of sensors that, through environmental monitoring, allows to recognize dangerous situations and to control in response the environmental conditions (acoustic, thermal, lighting and air quality). A strong background in indoor comfort and knowledge of the measurement techniques of the main physical quantities related to the four comfort sectors identified above is therefore required. Knowledge about interface systems and filling in questionnaires is also positively evaluated. The research activities will be conducted in collaboration with national and international partners.

The research activities consist of (1) the setting up of experimental systems for in situ and laboratory measurements; (2) the implementation of control systems for indoor comfort parameters; (3) the study, implementation, distribution and analysis of comfort related questionnaires; (4) the analysis of results with statistical techniques; (5) the production of reports and publications, for scientific purposes and for internal use, regarding the results of the 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 (MSc or MA) (or final degree following the study conditions valid before the M.D. 509/99) or equivalent foreign study title in Engineering or Architecture or a neighbouring field.
- Scientific profile: proven research experience in the field of characterization of the energy behaviour of the building system and of the indoor environmental quality of the built environment.
- Language skills: Language certificate at level B2 for Italian according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker)."

**Preferential title:** PhD or equivalent foreign study title in Building Physics or a scientific field related to the research.

**Type of selection:** qualifications

**Assessment criteria (max. 100 points):**

Academic degrees (max. 40 points):

- Mark of the final exam of Master's Degree: max. **15 points**;
- Masters (postgraduate certificates of a one/two years course program), postgraduate specialization courses, scholarships and research grants and awards, max. **10 points**;
- Doctoral research (PhD) thesis in **ING-IND/11: 15 points**.

Language skills (max 15 points):

- Language certificate at level C1 for Italian according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**;
- Language certificate at level C1 for German according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**;
- Language certificate at level C1 for English according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**.

Publications (max. 30 points):

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

Research and practical experience (max. 15 points):

Research experience acquired on the specific topic of the research project through contracts, scholarships and assignments in domestic corporations, international or foreign corporations or at private institutions or companionships which perform attested research activity, as long as the beginning and the duration of the

collaboration is evidenced as well as other qualifications that attest the evidenced professionalism of the candidate.

**Maximum number of publications, that will be evaluated: 10**

**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.

**Total minimum score in order to declare the candidate suitable for the position: 35/100**

**Place of work:** Bolzano

**The gross annual remuneration:** 25.000 EUR

**Duration of the contract:** 12 months. The contract may be extended until the 31.03.2022, whereas such an extension of the contract is necessary to complete the project and is subject to a positive assessment of the activity performed, as well as the availability of financial resources.

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

**Number of places:** 1

**PIS:** 155238 (TN2271)

**CUP:** I54I18000300006

**Supervisor:** Prof. Andrea Gasparella

**Disciplinary-scientific sector:** ING-IND/11 (Building Physics and Building Energy Systems) – Pos. 3

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

**Title of research project:** BIGWOOD - Reduction of barriers and prejudices on multi-storey wooden buildings through the creation of design awareness (ITAT1081 - BIGWOOD)

**Description of the research activity:** The wooden construction represents a resource for the regional territory, which boasts important companies, research centers and trade associations of international importance. The development of the construction techniques of modern wooden buildings has recently been mastered and there are still many prejudices in relation to issues such as durability and comfort. The research aims to contribute to the spread of the characterization of wood as a building material by promoting its use for multi-storey buildings.

The research activities concern the study of the thermal, hygrometric and acoustic properties of wooden buildings through analytical, numerical and experimental evaluations on laboratory components, as well as on mock-ups made on a 1:1 scale. A strong background in technical physics is therefore required, preferably with experience of application to wooden buildings. Research activities will be conducted in collaboration with national and international partners. The research activities consist in (1) setting up experimental systems for in situ and laboratory measurements; (2) numerical modelling of components and systems, up to the building scale; (3) analysis of the results with statistical techniques; (4) production of reports and publications, for scientific purposes and internal use, regarding the results of the 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 (MSc or MA) (or final degree following the study conditions valid before the M.D. 509/99) or equivalent foreign study title in Engineering or Architecture or a neighbouring field.
- Scientific profile: proven research experience in the field of characterization of the energy behaviour of the building system and of the indoor environmental quality of the built environment.
- Language skills: Language certificate at level B2 for Italian according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker)."

**Preferential title:** PhD or equivalent foreign study title in Building Physics or a scientific field related to the research.

**Type of selection:** qualifications

**Assessment criteria (max. 100 points):**

Academic degrees (max. 40 points):

- Mark of the final exam of Master's Degree: max. **15 points**;
- Masters (postgraduate certificates of a one/two years course program), postgraduate specialization courses, scholarships and research grants and awards, max. **10 points**;
- Doctoral research (PhD) thesis in **ING-IND/11: 15 points**.

Language skills (max 15 points):

- Language certificate at level C1 for Italian according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**;
- Language certificate at level C1 for German according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**;
- Language certificate at level C1 for English according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **5 points**.

Publications (max. 30 points):

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

Research and practical experience (max. 15 points):

Research experience acquired on the specific topic of the research project through contracts, scholarships and assignments in domestic corporations, international or foreign corporations or at private institutions or companionships which perform attested research activity, as long as the beginning and the duration of the collaboration is evidenced as well as other qualifications that attest the evidenced professionalism of the candidate.

**Maximum number of publications, that will be evaluated: 10**

**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.

**Total minimum score in order to declare the candidate suitable for the position: 35/100**

**Place of work:** Bolzano

**The gross annual remuneration:** 25'000 EUR

**Duration of the contract:** 12 months. The contract may be extended until the 31.03.2022, whereas such an extension of the contract is necessary to complete the project and is subject to a positive assessment of the activity performed, as well as the availability of financial resources.

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

**Number of places:** 1

**PIS:** 155179 (TN2272)

**CUP:** I54I18000290006

**Supervisor:** Prof. Andrea Gasparella

**Disciplinary-scientific sector:** ING-IND/11 (Building Physics and Building Energy Systems) – Pos. 4

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

**Title of research project:** Design, development and activation of a cross-border network of skills and services in the field of Green Public Procurement in the field of building construction (ITAT1079 - GPP4BUILD)

**Description of the research activity:** The researcher will provide support for the development of the INTERREG ITA-AUT ITAT1079 "GPP4Build" project - Green Public Procurement for Buildings, and the achievement of its objectives. In particular, the project will focus on the definition and application of CAM - minimum environmental criteria, and the circular economy principles in public building projects and the related impacts for companies operating in the building construction sector. The main target of the project is the creation, through a cross-border network between Italy and Austria, of a support system aimed at reducing the CAM competence gaps for economic operators in the building construction sector. These gaps, in fact, represent today significant barriers for companies in the construction sector, especially for SMEs, and limit the development of this market.

As far as the researcher's activities are concerned, he / she will take care of (1) performing a benchmarking analysis of the current Green Public Procurement GPP procedures in the national territory in the field of CAM regulations; (2) carry out a gap analysis on the data collected, discussing possible synergies with the main energy and environmental sustainability certification protocols for buildings; (3) to define a complete framework of skills required of companies in the construction sector; (4) participate in the development and management of a platform of competence with regard to GPP, CAM and sustainability certification; (5) provide support in the field of training and seminars on the issues of energy and environmental certification as well as the reporting required by the GPP4Build 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 (MSc or MA) (or final degree following the study conditions valid before the M.D. 509/99) or equivalent foreign study title in Engineering or Architecture or a neighbouring field.
- Scientific profile: Robust scientific and professional experience in the field of characterization and auditing of the energy performance of buildings, development of strategies for the optimization of the building energy performance.
- Language skills: Language certificate at level B2 for Italian or German according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker)."

**Preferential title:** PhD in Building Physics and Building Energy Systems or equivalent foreign study title

**Type of selection:** Based on qualifications



**Assessment criteria (max. 100 points):**

Academic degrees (max. 40 points):

- Mark of the final exam of Master's Degree: max. **15 points**;
- Masters (postgraduate certificates of a one/two years course program), postgraduate specialization courses, scholarships and research grants and awards, max. **10 points**;
- Doctoral research (PhD) thesis in **ING-IND/11: 15 points**.

Language skills (max 14 points):

- Language certificate at level C1 for Italian according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **7 points**;
- Language certificate at level C1 for German according to the attached list of "Recognized language certificates and diplomas used in selection procedures and required for the award of financial benefits for language competence" (or native speaker): **7 points**.

Publications (max. 30 points):

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

Research and practical experience (max. 16 points):

Research experience acquired on the specific topic of the research project through contracts, scholarships and assignments in domestic corporations, international or foreign corporations or at private institutions or companionships which perform attested research activity, as long as the beginning and the duration of the collaboration is evidenced as well as other qualifications that attest the evidenced professionalism of the candidate.

**Maximum number of publications, that will be evaluated: 10**

**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.

**Total minimum score in order to declare the candidate suitable for the position: 35/100**

**Place of work:** Bolzano

**The gross annual remuneration:** 26.000,00 EUR

**Duration of the contract:** 12 months. The contract may be extended until the 30.09.2021, whereas such an extension of the contract is necessary to complete the project and is subject to a positive assessment of the activity performed, as well as the availability of financial resources.

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**10. Faculty of Science and Technology**

**Number of places:** 1

**PIS:** 155160 e 155490 (Cost Center TN2091 e TN2409)

**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 MULTIflex dynamics in a MULTIflex framework.

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

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

Additional research activities in the context of other research projects on similar topics to be defined in due course with mutual agreement and the previous consent of the supervisor of the main research project. If the supervision of the related project is done in detail by another researcher/professor, the main supervisor, dr. Wehrle, has to countersign explicitly the part of the report regarding the activity on related research projects.

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

Researcher without PhD: master's degree in mechanical, aerospace, civil engineering, mechatronics or equivalent foreign study title and have a proven track record in research activities or work experience in the field of mechanical design and design optimization.

In particular, the candidate must show a good expertise in using C++ and/or in the development of lightweight structures and systems.

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

**Type of selection:** Titles.

**Assessment criteria (max. 100 points):**

Academic degrees (max. 50 points):

- Master's Degree in mechanical, aerospace, civil engineering, mechatronics or equivalent foreign study title: **max. 30 points;**
- Masters (postgraduate certificates of a one/two years course program), postgraduate specialization courses, scholarships and research grants and awards, **max. 5 points;**
- Doctoral degree (PhD) in mechanical, aerospace, civil engineering, mechatronics up to a maximum of **15 points;**

Publications (max. 20 points):

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

Research and practical experience (max. 30 points):

Research experience acquired on the specific topic of the research project through contracts, scholarships and assignments in domestic corporations, international or foreign corporations or at private institutions or societies which perform attested research activity, as long as the beginning and the duration of the collaboration is evidenced as well as other qualifications that attest the evidenced professionalism of the candidate.

**Maximum number of publications, that will be evaluated: 10**

**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.

**Total minimum score in order to declare the candidate suitable for the position: 50**

**Place of work:** Bozen / Bolzano

**The gross annual remuneration:** 26.000,00 € per annum

**Duration of the contract:** 12 months

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

**Number of places:** 1

**PIS:** 145964 (TN2251)

**CUP:** B51B18000810007

**Supervisor:** Prof. Paolo Lugli

**Disciplinary-scientific sector:** ING-INF/01 (Electronic Engineering)

**Competition sector:** 09/E3 (Electronic Engineering)

**Title of research project:** "STEX - Smart textile for monitoring muscles activity". Printing technologies for sensor systems based on nanostructures.

**Description of the research activity:** The general objective of the project is to develop printing techniques for the realization of electronic components on flexible substrates. The research activities will focus on the fabrication and characterization of the components in function of the active material and the substrate used. In particular the following activities are planned: a) preparation of conductive inks based on carbon nanotubes and nanowires of silver; b) realization of physical and biological sensors and their characterization; c) realization of thermocouples or other components that enable energy harvesting to ensure complete autonomy of sensors in real application environments.

**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 or equivalent foreign study title in Electronics, Material Science or Engineering physics with specialization on electronic devices, and/or Solid-state physics or Engineering and have a proven track record in research activities in the field of biosensors and/or printing technologies for electronic components based on nanostructures.

In particular, the candidate must show a good expertise in the research activities described above, both on the theoretical and technical-methodological level attested by a sufficient number of scientific publications.

**Preferential title:** PhD or equivalent foreign study title in Electronic Engineering or Physics or a related scientific field.

**Type of selection:** by qualifications

**Assessment criteria (max. 100 points):**

Academic degrees (max. 30 points):

- Master degree or equivalent foreign study title in Electronics, Material Science or Engineering physics with specialization on electronic devices, and/or Solid-state physics or Engineering: max. **10 points**;

- Masters (postgraduate certificates of a one/two years course program), postgraduate specialization courses, scholarships and research grants and awards, max. **10 points**;
- Doctoral research (PhD) or equivalent foreign study title in Electronic Engineering or Physics or a related scientific field, up to a maximum of **10 points**;

Publications (max. 45 points):

- Originality, innovativeness, methodological rigor and relevance of each scientific publication;
- Congruence of each publication with the competition sector;
- Scientific relevance of each publication's editorial classification and their diffusion among the scientific community;
- Contribution of the candidate in publications with more than one author.

Research and practical experience (max. 25 points):

Research experience acquired on the specific topic of the research project through contracts, scholarships and assignments in domestic corporations, international or foreign corporations or at private institutions or companionships which perform attested research activity, as long as the beginning and the duration of the collaboration is evidenced as well as other qualifications that attest the evidenced professionalism of the candidate.

**Maximum number of publications, that will be evaluated: 10**

**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.

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

**Place of work:** Bozen-Bolzano

**The gross annual remuneration:** 29.000,00 Euro

**Duration of the contract:** 12 months. The contract may be extended up to a maximum of 12 months, whereas such an extension of the contract is necessary to complete the project and is subject to a positive assessment of the activity performed, as well as the availability of financial resources.

**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) relative or relative by marriage up to the fourth degree, with a professor of the Department awarding the research assistant contract, with the Rector, the Director or with a member of the University Council of the University;
  - 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 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 supervisor.
- 4) When the research assistant signs the contract he has to submit a declaration as per D.P.R. 445/2000 which lists the previous research assistant contracts and states that he is not in a situation of incompatibility.

**Art. 5**  
*Conditions for presenting the application for participation and publications*

- 1) To participate in the present selection procedure 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=18&year=2019>  
within **December 16, 2019**.

- 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)  
Piazza Università, 1 - C. P. 276  
39100 Bozen-Bolzano  
Italy

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 on 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 University disclaims liability for possible postal mis-deliveries.

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

**The candidate is obligated to add to the application in paper form, a data carrier (memory-stick or cd) which contains a digital copy of all documents produced (the same holds true**

**for the publications).**

- 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 a fixed-time research assistant contract 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;
  - f) not having been convicted of criminal offences;
  - g) not having pending criminal suits or received criminal sentences and not currently undergoing criminal proceedings (otherwise to indicate);
  - h) to have viewed the advertisement to which this selection procedure refers and accepts all its provisions;
  - i) that the content of the digital copies of all documents produced correspond to the content of the copies produced on paper;
  - j) that the publications on the data carrier conform to the original
  - k) 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 in Italy;
  - l) to be employee at the following public administration....
  - m) 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;
  - n) 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-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 according to the present call;
  - o) 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);
  - p) not to be a relative or relative by marriage up to the fourth degree, with a professor of the Department awarding the research assistant contract, with the Rector, the Director or with a member of the University Council of the University;
  - q) not having 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;
- r) the position concerning the fulfillment of the military duties;
  - s) 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;
  - t) to have 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.
- 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 numbered 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 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 qualifications 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 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 consular 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 publications must be submitted together with the application.
- 2) Publications will only be evaluated when they can be traced in public catalogues as publications.  
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) 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.
- 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 or digital copy. 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 or digital copies of the publications they must be 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.
- 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 falling 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*

- 1) The renunciation of participation at the selection procedure (to be drawn up according to the model of attachment 'C') must be sent to the President of the Commission of selection and, for information, to the person in charge of the procedure (e-mail: [personnel\\_academic@unibz.it](mailto:personnel_academic@unibz.it)).
- Renunciations preceding the formation of the Commission of selection must be subsequently sent 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 interview is considered implied renunciation to the selection procedure.

**Art. 10**  
*Commission of Selection*

- 1) The commission of selection is composed of three members, who are professors or researchers at Universities in Italy and/or abroad. One member must be a full or associate professor and only one member can be a fixed-time researcher.

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.  
The commission of selection evaluates up to a maximum of 10 publications.
- 2) The interview may be performed also by videoconference, if the commission of selection approves it and the public session is guaranteed.
- 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 supervisor, of the program, without predetermination of working hours.

### **Art. 15**

#### *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 upon authorisation of the supervisor is allowed to do didactic activities (lessons, exercises, laboratories, supplementary didactic activities) for a maximum of 60 hours per academic year at the Free University of Bozen-Bolzano and/or at other Universities/Institutions, provided that this activity does not interfere with the research activities.

The didactic activities at the University is decided by the Faculty upon consent of the holder of the research assistant contract and assigned directly. The didactic activity is remunerated by the University according to "*vigenti tariffari in materia di docenza a contratto e delle vigenti disposizioni in materia di collaboratori didattici*".

- 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 or elsewhere, if authorized by the supervisor.

The in advance authorized expenses for missions are refunded according to "*vigente regolamento in materia di viaggi di servizio*".

## **Art. 16**

### *Supervisor and entrustees tasks*

- 1) The Department the research assistant contract holder belongs nominates a professor or researcher or a fixed-time researcher (if the contract is longer than the contract of the research assistant) as supervisor for the research activities, guiding and directing the research activities undertaken by the research assistant contract holder.
- 2) The supervisor must collect and assess the concise and the final relation as per art. 17, paragraph 1. He/she further must report to the Responsible of the Department and to the Personnel 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) In order to elaborate the contract the supervisor has to inform the Personnel Academic Staff about the commencement of the contract and has to send a detailed description ( in accordance to the call) of the research activity with indication of possible subgoals which have to be achieved at determined deadlines during the project.

## **Art. 17**

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

- 1) In addition to the achievement of the possible subgoals as per art. 9 paragraph 3 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 supervisor 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 supervisor, 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 supervisor 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. 18**

### *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 supervisor, 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. 19**

##### *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. 20**

##### *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. 21**

##### *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. 22**

##### *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). The winner of the selection procedure will be appointed as an external data processing manager at the time of the appointment.

#### **Art. 23**

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

- 1) 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, 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=18&year=2019> expressly dedicated to the selection procedures are available all relating information about the progress report of the Commission of selection's works as well as the relating deadlines.

**Art. 24**

*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, 13.11.2019

Decree no. 692/2019

THE RECTOR

Prof. Paolo Lugli

