

FREE UNIVERSITY OF BOZEN-BOLZANO

SELECTION PROCEDURES for the conferral of

12 fixed-time RESEARCH ASSISTANT CONTRACT for COLLABORATION at RESEARCH ACTIVITY

Rector's Decree
of 07.02.2018,
no. 88/2018

FREE UNIVERSITY OF BOZEN-BOLZANO

RECTOR'S DECREE

no. 88/2018

Selection procedures for the awarding of 12 fixed-time research assistant contracts for collaboration at research activity

THE RECTOR

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

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

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

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

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

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 06.12.2017, no. 285, requesting the awarding of one 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 06.12.2017, no. 286, requesting the awarding of one 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 06.12.2017, no. 287, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/05 (Forest management and silviculture);

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 06.12.2017, no. 289, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-INF/01 (Electronic Engineering);

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 31.01.2018, no. 17, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector AGR/16 (Agricultural Microbiology);

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 31.01.2018, no. 18, requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ICAR/02 (Hydraulic structures, maritime engineering and hydrology);

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 31.01.2018, no. 19 requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-INF/04 (Systems and control engineering) Pos. I;

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 31.01.2018, no. 19 requesting the awarding of one fixed-time research assistant contract for

collaboration at research activity in the disciplinary-scientific sector ING-INF/04 (Systems and control engineering) Pos. II;

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 31.01.2018, no. 20 requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/08 (Fluid Machinery);

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 31.01.2018, no. 21 requesting the awarding of one 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 31.01.2018, no. 22 requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/16 (Manufacturing Technology and Systems);

IN VIEW OF the deliberation of the Faculty Council of the Faculty of Science and Technology from 31.01.2018, no. 23 requesting the awarding of one fixed-time research assistant contract for collaboration at research activity in the disciplinary-scientific sector ING-IND/17 (Mechanical Industrial Plants);

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

DECREES

Art. 1

Object of the selection procedures

The Free University of Bolzano, hereinafter referred to as University, announces 12 selection procedures for the awarding of 12 fixed-time research assistant contracts for collaboration at research activity for the faculty and disciplinary-scientific sector hereafter indicated.

1) Faculty of Science and Technology

PIS: 128725

CUP: I52F17000050007

Disciplinary-scientific sector: AGR/03 (Arboriculture)

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

Title of research project: IQUIS - Quality Indicators and Sustainable Irrigation in apple production: improvement of water supply in fruit trees

Description of the research activity:

The full time activity of the successful candidate will consist in 1) contributing to set up an experimental field with sensors where different irrigation methods, irrigation frequencies and the efficacy of evaporative cooling irrigation will be compared; 2) performing physiological and biometric measures on trees and fruits; 3) quantifying the nitrate leached out as a result of the different irrigation techniques; 4) collaborating at a project funded by Assomela aiming at developing indexes for sustainability and soil quality. In addition, the successful candidate will perform bibliographic research, statistical analysis of data, preparation of tables, figures and reports to use as background for a future scientific publication.

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

Title:

Master Degree in Agricultural Sciences, Environmental sciences or Forest Sciences, obtained in Italy or other countries.

Adequate knowledge of the research topics.

Preferential title: Ph.D. or equivalent

The gross annual remuneration: 20.000,00 Euro

Number of places: 1 (one)

Duration of the contract: 1.5 years

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

Language of the interview: English

The assessment criteria: - To be defined by the examining Commission in its first relating 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 relating meeting

Criteria for the evaluation for the interview: - To be defined by the examining Commission in its first relating meeting

Maximum duration of the interview: To be defined by the examining Commission

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

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

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

Minimal score, which is necessary for admission to the oral exam: To be defined by the examining Commission in its first relating meeting

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

Supervisor: Prof. Massimo Tagliavini

Place of work: Bolzano - Bozen

Session: I 2018

2 Faculty of Science and Technology

PIS: 129023

CUP: I52F16000820005

Disciplinary-scientific sector: AGR/03 – ARBORICULTURE AND FRUITCULTURE

Competition Sector: 07/B2 – ARBORICULTURE AND FOREST SYSTEMS

Title of research project: Wood-Up - Optimization of wood gasification chain in South Tyrol to produce bio-energy and other high-value green products to enhance soil fertility and mitigate climate change.

Description of the research activity: The winner of the present competition will take part to an interdisciplinary project dealing, among other subjects, with the study of biochar as possible soil amendment in viticultural systems. He/she will contribute to the set-up of the experiment in the vineyard and will be responsible for monitoring of the soil and plant water status as affected by differential biochar applications. In more detail, he/she will perform leaf water potential (pre-dawn and mid-day) measurements together with gas exchange measurements at leaf level. He/she will also analyze leaf fluorescence with a portable fluorimeter. The definition of the WUEi (intrinsic water use efficiency) as affected by biochar treatments will be also evaluated.

In the framework of the same project WP, he/she will study the effect of biochar on the N cycle in grapevine cultivated in soilless and controlled conditions. He/she will be in charge of the measurement of the main biometric indexes and will conduct laboratory analysis of N content that foreseen also the use of the stable isotope technique. The winner of the present competition is expected to take part to the preparation of scientific reports and papers for the publication on international and national journals.

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

- Master degree in agricultural sciences, biology, environment, forestry and similar disciplines
- Research experience in the measurement of plant ecophysiological parameters, both in the field and in laboratory
- Good knowledge of the English language
- Driving license type B

Preferential title: Ph.D. or equivalent

The gross annual remuneration: 23.000,00 Euro

Number of places: 1 (one)

Duration of the contract: 1 year

Type of selection: Titles and oral exam

Language of the interview: English

The assessment criteria: Defined by the evaluation commission at the first meeting.

Criteria for determining the part of the candidate in publications with more than one author: Defined by the evaluation commission at the first meeting.

Criteria for the evaluation for the interview: Defined by the evaluation commission at the first meeting.

Maximum duration of the interview: 30 minutes

Object of the interview:

Discussion of the candidate's titles. Questions about the water and nitrogen cycles in orchard ecosystems. It will be evaluated the candidate's competences regarding the techniques to monitor plant and soil water status and the competences regarding the techniques for the analysis of nitrogen flux in plant and soil.

Score to attribute to the evaluation, respectively, of the qualifications, of the publications and of the interview: It is fixed by the commission at the first meeting.

Minimal score which is necessary for admission to the oral exam: It is eventually fixed by the commission at the first meeting.

Total minimum score in order to declare the candidate suitable for the position: It is eventually fixed by the commission at the first meeting.

Supervisor: Prof Carlo Andreotti/Prof Massimo Tagliavini

Place of work: Bolzano - Bozen

Session: I 2018

3 Faculty of Science and Technology

PIS: 129130

CUP: I52F16000820005

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: Wood-Up - Optimization of wood gasification chain in South Tyrol to produce bio-energy and other high-value green products to enhance soil fertility and mitigate climate change

Description of the research activity: The research activity is included within the WP10 (Life Cycle Analysis of wood biomass valorisation, through extraction, gasification, biochar production and application to agricultural soils) of the WOOD-UP project.

The applicant will have to participate to all the activities planned for this WP, which aims to perform a Life Cycle Analysis (LCA) of a valorisation chain for wood biomass, which comprises extraction of food/pharmaceutical products, energy production, biochar production and application to agricultural soils. This will be compared to the LCA of the actual chain of wood biomass gasification and disposal of residual char. Data for the LCA will be partly obtained from literature review, partly provided by other WPs of the WOOD-UP project.

The activity will be divided in two main tasks:

1. Life cycle inventory of different wood biomass valorisation chains
2. Life cycle analysis of indirect effects of biochar application to agricultural soils in collaboration with LCA Works (London, UK).

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

- Title:

Master Degree in Environmental sciences, or Forest Sciences, or Agricultural Sciences, or Chemical or Biological or Geological or Natural Sciences, or Economics and Engineering obtained in Italy or other countries.

PhD in Scientific subjects within Environmental sciences, Forest Sciences, Agricultural Sciences, or Chemical, Biological or Geological Science, or Economics and Engineering obtained in Italy or other countries.

Preferential title: /

The gross annual remuneration: 24.000,00 Euro

Number of places: 1 (one)

Duration of the contract: 1 year

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

Language of the interview: English

The assessment criteria: Defined by the evaluation commission at the first meeting.

Criteria for determining the part of the candidate in publications with more than one author: Defined by the evaluation commission at the first meeting.

Criteria for the evaluation for the interview: Defined by the evaluation commission at the first meeting.

Maximum duration of the interview: To be defined by the examining Commission.

Object of the interview:

Interview to test candidates' knowledge of the curricular expertise required

Score to attribute to the evaluation, respectively, of the qualifications, of the publications and of the interview: It is fixed by the commission at the first meeting.

Minimal score which is necessary for admission to the oral exam: It is eventually fixed by the commission at the first meeting.

Total minimum score in order to declare the candidate suitable for the position: It is eventually fixed by the commission at the first meeting.

Supervisor: Prof. Giustino Tonon

Place of work: Bolzano - Bozen

Session: I 2018

4 Faculty of Science and Technology

PIS: 128754

CUP: /

Disciplinary-scientific sector: ING-INF/01 - Electronic Engineering

Competition Sector: 09/E3 – Electronic Engineering

Title of research project: Design and realization of electronic components on flexible substrate.

Description of the research activity: Objective of the project is the development of simulation and printing techniques for the design and fabrication of electronic components on flexible substrates (e.g. plastic). The research activity will focus on the modeling of components such as sensors, transistors and solar cells using commercial or in-house simulators, as well as on their fabrication via printing technologies. The following activities are planned: a) development of physical models and their integration in simulators; b) fabrication of sensors (bio, gas, temperature and humidity), transistors and/or solar cells on flexible substrates; c) characterization and simulations of the built components.

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

The candidate must demonstrate adequate knowledge, as demonstrated by research activity as described above, both on the theoretical and technical-methodological level attested by a sufficient number of scientific publications.

Required study title: Master degree in electronics or engineering physics, with specialization on electronic

devices, and / or solid-state physics or engineering.

Preferential title: Preference will be given to a PhD in electronic engineering or physics.

The gross annual remuneration: 25.000,00 Euro

Number of places: 1 (one)

Duration of the contract: One year contract (renewable for other 2 years given both the positive evaluation of the activity and the availability of the budget.)

Type of selection: By qualifications

The assessment criteria:

PHD in the field of this call: **max. 15 points**

- Degree mark: **max 15 points;**

With regard to publications, they will be assessed the total number of publications, their editorial collocation and the consistency with the research activity of the project: **max 40 points**

Other titles: **max. 30 points**

-Research experience in the field related to the project;

-Post-graduate diplomas;

-Post-graduate specialized courses;

-Qualifications related to the service contracts, scholarships and appointments in national, foreign or international research institutions, or in private institutions or in consortia, which are engaged in research activities duly certified and showing the period and the duration of the activity, as well as other qualifications, duly documented, which are able to classify the candidate's professionalism.

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

Publications in collaboration will be evaluated according to the number of authors. The greater the number of authors, and less will be considered the contribution of the candidate..

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

Total minimum score in order to declare the candidate suitable for the position: 30

Supervisor: Prof. Paolo Lugli

Place of work: Bolzano - Bozen

Session: I 2018

5 Faculty of Science and Technology

I Session 2018

Number of places: 1

PIS: 130394

CUP: I52F17001350005

Supervisor: Prof. Marco Gobbetti

Disciplinary-scientific sector: AGR/16 Agricultural Microbiology

Competition sector: 07/F2 Agricultural Microbiology

Title of research project: FUNMICROMILK - Functional microbiota diversity of the Alto Adige cows' milk.

Description of the research activity:

The research activities aims at studying a new conceptual/ecological mechanistic view on how cause-and-effect relationships with farming conditions (Alto Adige territory) shape the assembly of the cows' milk microbiota.

In particular, the following activities will be carried out:

- application of culture-independent approaches for the assessment of the microbiota structure in milk samples from South Tyrol;
- Evaluation of the functions of microbial populations using advanced methods of metagenomics and analysis of complex data sets;
- correlation of molecular data with the environmental data from the different farms.

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

PhD in Microbial Ecology, Mountain system ecology, or equivalent denominations as well as equivalent foreign qualifications.

Type of selection: Qualifications and exam.

The assessment criteria (max. 60 points):

ACADEMIC TITLES:

- Documented training or research at qualified Italian or foreign institutions (max. 15 points);
- Realization of project activity within the area of ecological microbiology (max. 10 points);
- Speaker at national and international conferences (max. 5 points).

PUBLICATIONS

- 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 (max. 30 points).

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

Number of authors and author position in the publication.

Criteria for the evaluation for the interview:

In the oral test it will be evaluated

- the methodological rigor;
- the degree of knowledge of the subject matter of examination;
- the degree of knowledge of research topics;
- the level of knowledge updating of the specific disciplinary sector for which the research grant has been banned;
- the knowledge of the language(s) mentioned in the call.

Language of the exam: English

Duration of the exam: 30 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: 50

Place of work: NOI TechPark – Free University of Bolzano

The gross annual remuneration: 20.000,00 Euro

Duration of the contract: 1 year without renewal

6 Faculty of Science and Technology

I Session 2018

Number of places: 1

PIS: 130725

CUP: I52F17001260005

Supervisor: Prof. Maurizio Righetti

Disciplinary-scientific sector: ICAR/02 - Hydraulic structures, maritime engineering and hydrology

Competition sector: 08/A1 – Hydraulics, Hydrology, Hydraulic and Maritime Structures

Title of research project (+ acronym if necessary):

MOIEREF: Methods for optimization and integration given energy prices and renewable resources forecasts.

Description of the research activity: For the optimization of hydroelectric production from plants to basins,

Water availability forecasting is fundamental, for the optimization of hydroelectric production from reservoir hydropower system. Forecasting is performed through the proper hydrological modeling of the water inflow due to weather forcing, taking into account the physical characteristics of the basin itself. The proper prediction of the flow rate entering a reservoir allows one the application of suitable optimization methods to maximize the economic yield of the hydropower system.

The research activity will focus on the development of a forecast hydro-meteorological chain as a support tool for the production forecasting and the management optimization of the hydropower plants with reservoir and run-of-the-river, in mountain region and in the presence of glaciers. The hydrological modeling can be short-term (a few days) and long-term. The hydrological modeling will have to duly consider and model also the contribution to the outflow given by the nivo-glacial melt/ablation and the long-term effect of climate change. Advanced hydrological models will have to be applied and developed, including the ARFFS hydrological model. The hydrological models must be flexible enough to allow the use of spatio-temporal data bases for the proper physical representation of the catchment to be simulated. They must be calibrated according to the latest calibration techniques, now-testing, back-testing and forecasting. Part of the research activity will be aimed at updating the ARFFS hydrological model, to improve its performance and compatibility with different spatial-temporal weather data bases. In particular, it will be possible to develop specific modules for the management of data bases, the representation of some significant hydrologic processes (e.g. nivo-glacial dynamics), the building of a suitable modeling framework to be included in the model itself.

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 Civil and Environmental Engineering or Equivalent.

Proven research or professional experience and appropriate knowledge in the field of hydrological modeling

Preferential title: PhD in Hydrodynamics, Hydraulics or Environmental Engineering or equivalent, in a field of research congruent with the position of AR subject to this call or equivalent study title obtained abroad.

Type of selection: Titles and oral exam.

The assessment criteria (max. 70 points):

Master Degree: max. 10 points thus determined:

- 110 cum laude / 110 = 10 points
- 110/110 = 8 points
- between 107 and 109 = 6 points

PhD: max. 15 points

Evaluation criteria:

- Relevance of the title with the research topic: 10 points
- Relevance of the title with the research sector: 5 points

Qualifications for activities related to the research area declared in the call, pursuant to contracts, scholarships, research collaborations and assignments in national, foreign or international research organizations, or at private institutions or consortia performing duly certified research activities. The date and duration of activity, as well as other titles, have to be duly documented and suitable to qualify the candidate's professionalism: max 10 points.

Evaluation criteria:

- research grant related to the research area declared in the call and/or to the scientific sector stated in the notice: up to 3 points;
- collaboration contract with universities or research organizations for activities related to the research area declared in the call: up to 2 points;
- collaboration contract with private institutions or consortia for activities related to the research area declared in the call: points 1;
- scholarships at universities or research institutes for activities related to the research area declared in the call and/or to the scientific sector stated in the notice: up to 2 points;
- research collaborations (stages, training/research activities) for activities related to the research area declared in the call and / or the scientific sector stated in the call: up to 1 point;
- training courses related to topics relevant to the research area: max points 1.

Publications (up to 35 points)

- articles in international journals with IF (impact factor): max. points 10;
- articles in international journals without IF with referee: max. points 6;
- articles in national journals (in Italian or in other languages) with referee: max. points 3;
- international monographs: max. points 5;
- national monographs (in Italian or in other languages): max. 4 points;

- chapters of books in international books: max. 4 points;
- chapters of books in national books (in Italian or in other languages): max. 3 points.

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

- a) the order of names: guide, drafter, coordinator;
- b) consistency with the rest of the scientific activity;
- c) the objective possibility of identifying the applicant's personal contribution by means of unambiguous indications contained in the publications.

Criteria for the evaluation for the interview:

In the oral exam (up to 30 points) it will be evaluated:

- the candidate's ability to motivate and justify the choices and content of the research topics he will illustrate;
- the methodological rigour;
- the clarity in the discussion;
- the degree of knowledge of the subject matter of examination;
- the degree of mastery of the research topics;
- the level of updating of knowledge in the specific disciplinary sector for which the call has been opened;
- knowledge of English.

Language of the exam: English

Duration of the exam: 45 min

Object of the exam:

The exam/exams will cover:

- (a) the discussion of titles and publications;
- b) the general and specific topics in the scientific and disciplinary field for which the research call has been opened;
- c) the deepening of the scientific and professional experience of the candidate, with particular reference to the research activities mentioned in the notice.

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

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

Place of work: UNIBZ, Bolzano-Bozen

The gross annual remuneration: 23.000,00 €

Duration of the contract: 12 months, renewable for other 12 months, given both the positive evaluation of the activity and the availability of the budget.

7 Faculty of Science and Technology

I Session 2018

Number of places: 1

PIS: 130300

CUP: /

Supervisor: Prof. Angelika Peer

Disciplinary-scientific sector: ING-INF/04 – SYSTEMS AND CONTROL ENGINEERING

Competition sector: 09/G1 - SYSTEMS AND CONTROL ENGINEERING

Title of research project: Action, plan and intention understanding for supporting decision making in human-robot collaboration

Research activity:

Recent trends in robotics aim at developing robotic systems that are capable of sharing their workspace with humans to ultimately assist them in performing tasks. Such robots, however, need to be endowed with capabilities of action, plan and intention understanding to understand what the human agent is doing, why and to what end such that the robot can then reason and decide about own actions to be taken under a certain context. A major challenge is consequently to research and develop computational models that allow a robot to understand current and to predict next manipulation and locomotion actions of a human subject based on identified intentions, plans, and context.

In the context of this work, our already existing biologically-inspired action understanding system, which is based on a fully dynamic approach in contrast to classical probabilistic approaches, should be extended towards capabilities of plan and intention recognition and new modules for the context-based decision making on action sharing and complementation should be developed.

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

- Applicants must demonstrate that they have sufficient knowledge of the research topics described above, both theoretical and technical- methodological (in particular experience with dynamical systems) ideally supported by a sufficient number of scientific publications.
- Master degree in Electrical Engineering, Mechanical Engineering, Computer Science, Robotics or Human-Machine Interaction

Preferential title: PhD in robotics, control, mechanical engineering, electrical engineering, computer science, physics or equivalent foreign study title.

Type of selection: based on qualification and exam

The assessment criteria (max. 75 points):

1. Possession of a PhD degree (or equivalent) in a field consistent with this announcement (max. 10 points);

2. Mark of the diploma degree (max. 5 points)

3. Other titles (max. 5 points):

a) Post-graduate diplomas;

b) Post-graduate specialized courses;

c) Qualifications related to service contracts, scholarships and appointments in national, foreign or international research institutions, or in private institutions or in consortia, which are engaged in research activities, duly certified and showing the period and the duration of the activity, as well as other qualifications, duly documented, which are able to classify the candidate's professionalism.

4. Track record of academic conference and journal publications in the relevant area of the advertisement (number of relevant publications, originality; scientific significance; diffusion within the scientific community; number of authors; relevance of methods employed in the publications to the research field of the advertisement) (max. 15 points).

5. Track record of publications and projects that demonstrate expertise in the areas of dynamic system control as well as experience with designing, implementing, and performing human-human as well as human-robot experiments (max. 15 points).

6. Track record of publications and projects or certificates that demonstrate expertise

with real-time operating systems as well as programming skills in C/C++, Python, Matlab/Simulink, and ROS (max. 5 points).

7. Proof of activities of documentation, communication and dissemination of research results in the scientific world, industry, and the public (number and variety of activities, e.g. (invited) lectures at conferences / workshops, reporting activities in the framework of research projects, organization of workshops, special issues, editorships of books, organization of exhibitions and events such as open house, industrial workshops etc.) (max. 5 points).

8. Proof of projects carried out in a team as well as evidence of existing professional networks in science, industry and public life (maximum 5 points).

9. Proof of project responsibility with respect to the management of own workload and those of other project participants, as well as the management of research resources (maximum 5 points).

10. Proof of supervised student work and courses on research methods and the use of research equipment (maximum 5 points).

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

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

Criteria for the evaluation for the interview:

The oral exam will evaluate (max. 25 points):

- the ability of the candidate to substantiate, support and critically reflect on the selected solutions and the chosen research methods and research topics
- the methodological rigor
- the clarity of the explanations
- existing scientific knowledge in the advertised area
- the mastery of research methods and tools
- existing soft skills in terms of communication and working in teams as well as networking ability
- existing organizational and management skills
- the interest for the following subjects:
 - o Interdisciplinary research
 - o Work with human subjects
- the knowledge of the language provided for in the call for tenders.

Language of the exam: English

Duration of the exam: 1 hour

Object of the exam:

- a) Discussion of titles, projects and publications
- b) Detailed discussion of the didactic, scientific and professional experience of the candidate.
- c) Discussion of scientific knowledge in the field of the advertisement
- d) Discussion of programming knowledge and software usage
- e) Discussion of soft skills
- f) Discussion of organizational and management skills

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

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

Place of work: Bruneck/Brunico e Bozen/Bolzano

The gross annual remuneration: 29.000,00 Euro

Duration of the contract:

One-year contract (renewable for another 2 years given both the positive evaluation of the activity and the availability of the budget.)

8 Faculty of Science and Technology

I Session 2018

Number of places: 1

PIS: 130302

CUP: /

Supervisor: Prof. Angelika Peer

Disciplinary-scientific sector: ING-INF/04 – SYSTEMS AND CONTROL ENGINEERING

Competition sector:09/G1 - SYSTEMS AND CONTROL ENGINEERING

Title of research project:Dynamic Models for Emotion Estimation from Physiological Signals

Description of the research activity:

Current efforts in human-machine-interaction aim at finding ways to make interaction more natural. In this, knowledge of the user's emotional state is considered an important factor. Methods of automatic and reliable estimation of affective states from various modalities has therefore received much attention lately. In particular, emotion recognition from physiological signals is expedient, since it taps the pure, unaltered emotion in contrast to modalities like facial expressions, which can be faked.

To date, emotion recognition, however, has mostly been carried out using static machine learning methods, while recent developments of emotion theory pointed out the dynamic nature of emotions. This work concerns itself with the extension of our preliminary developed gray-box framework for dynamic emotion estimation that incorporates findings from appraisal models, specifically Scherer's Component Process Model to model dynamic processes of emotion quality and intensity changes. More specifically the aim is to extend the so far existing emotion model for intensity estimation to more emotion qualities to measure and to model intensity transitions between them next to intensity changes. This will require the design of proper subject experiments, the capturing of physiological signals as well as the post-processing of this data. Further, the available emotion estimation model will have to be extended to include additional dynamics and layers and system identification/machine learning methods will have to be applied to the dataset to derive model parameters.

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

- Applicants must demonstrate that they have sufficient knowledge of the research topics described above, both theoretical and technical- methodological (in particular experience with methods of optimization, system identification, modelling and machine learning) ideally supported by a sufficient number of scientific publications.
- Master degree in Electrical Engineering, Mechanical Engineering, Computer Science, Robotics or Human-Machine Interaction

Preferential title: PhD in robotics, control, mechanical engineering, electrical engineering, computer science, physics or equivalent foreign study title.

Type of selection: based on qualification and exam

The assessment criteria (max. 75 points):

- 1 Possession of a PhD degree (or equivalent) in a field consistent with this announcement (max. 10 points);
- 2 Mark of the diploma degree (max. 5 points)
- 3 Other titles (max. 5 points):
 - a) Post-graduate diplomas;
 - b) Post-graduate specialized courses;
 - c) Qualifications related to service contracts, scholarships and appointments in national, foreign or international research institutions, or in private institutions or in consortia, which are engaged in research activities, duly certified and showing the period and the duration of the activity, as well as other qualifications, duly documented, which are able to classify the candidate's professionalism.
- 4 Track record of academic conference and journal publications in the relevant area of the advertisement (number of relevant publications, originality; scientific significance; diffusion within the scientific community; number of authors; relevance of methods employed in the publications to the research field of the advertisement) (max. 15 points).
- 5 Track record of publications and projects that demonstrate expertise in the areas of dynamic system modelling, system identification, optimization and machine learning as well as experience with designing, implementing, and performing human subject experiments (max. 15 points).
- 6 Track record of publications and projects or certificates that demonstrate expertise with programming in C/C++, Python, Matlab/Simulink (max. 5 points).
- 7 Proof of activities of documentation, communication and dissemination of research results in the scientific world, industry, and the public (number and variety of activities, e.g. (invited) lectures at conferences / workshops, reporting activities in the framework of research projects, organization of workshops, special issues, editorships of books, organization of exhibitions and events such as open house, industrial workshops etc.) (max 5 points).
- 8 Proof of projects carried out in a team as well as evidence of existing professional networks in science, industry and public life (maximum 5 points).
- 9 Proof of project responsibility with respect to the management of own workload and those of other project participants, as well as the management of research resources (maximum 5 points).
- 10 Proof of supervised student work and courses on research methods and the use of research equipment (maximum 5 points).

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

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

Criteria for the evaluation for the interview:

The oral exam will evaluate (max. 25 points):

- the ability of the candidate to substantiate, support and critically reflect on the selected solutions and the chosen research methods and research topics
- the methodological rigor
- the clarity of the explanations
- existing scientific knowledge in the advertised area
- the mastery of research methods and tools
- existing soft skills in terms of communication and working in teams as well as networking ability
- existing organizational and management skills
- the interest for the following subjects:
 - o Emotion research
 - o Interdisciplinary research
 - o Work with human subjects
- The knowledge of the language provided for in the call for tenders.

Language of the exam: English

Duration of the exam: 1 hour

Object of the exam:

- a) Discussion of titles, projects and publications
- b) Detailed discussion of the didactic, scientific and professional experience of the candidate.
- c) Discussion of scientific knowledge in the field of the advertisement
- d) Discussion of programming knowledge and software usage
- e) Discussion of soft skills
- f) Discussion of organizational and management skills

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

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

Place of work: Bruneck/Brunico e Bozen/Bolzano

The gross annual remuneration: 29.000,00 Euro

Duration of the contract:

One-year contract (renewable for another 2 years given both the positive evaluation of the activity and the availability of the budget.)

9 Faculty of Science and Technology**I Session 2018**

Number of places: 1

PIS: 130349

CUP: I52F17001340005

Supervisor: Prof. Michele Larcher

Disciplinary-scientific sector: ING-IND/08 (Fluid Machinery)

Competition sector: 09/C1 (Fluid Machinery, Energy Systems and Power Generation)

Title of research project (+ akronym if necessary): THE-DYSCO: THERmo-fluid DYNamics of Solid fuels Conversion systems: Optimization strategies.

Description of the research activity: The aim of this project consists of improving the knowledge on solid fuel conversion systems and optimizing their operation, taking advantage of computational fluid dynamics (CFD) and imaging methods, in synergy with more consolidated competences on thermodynamics and fluid machines applied to energy conversion systems.

CFD (Computational Fluid Dynamics) tools will be used with the aim to get important efficiency increments by defining the correct air flow paths able to fluidize the solids bed, enhance the flow homogeneity and the heat transfer between gas and solids and the kinetics of the reaction. The research objective is to select the proper CFD methodology with the aim to find the best compromise between the particle tracking accuracy and the computational effort. The results of the simulations will suggest the possible solutions to be investigated by means of experiments on cold models, which will be, in the frame of this project, designed and built up for the purpose.

The applicant will use both commercial codes and "in-house" codes to describe the interaction of fluids and solid particles and to develop a better fluid-dynamic and analytical description of the fluidization process.

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

The holder of the research grant must hold a Masters degree in Mechanical Engineering, Energy Engineering, Environmental Engineering or equivalent and have a proven track record in research activities or work experience in the study of fluid dynamics of the energy systems.

In particular, the candidate must show a good expertise in using fluid dynamics simulation software applied to the study of heat and mass transfer and/or in the development of numerical codes applied to energy systems.

PhD in Mechanical Engineering, Energy Engineering, Environmental Engineering or equivalent foreign study title.

Type of selection: Qualifications

The assessment criteria (max. 100 points):

PhD title
max. 15/100 points

Evaluation criteria:

- relevance of the title within the research sector: 15 points
- relevance of the title within a similar research sector: 5 points

MSc mark
max. 15/100 points for the MSc mark, as here reported:

- up to 95/110 = 0 points;
- 100/110 = 5 points;
- 105/110 = 10 points;
- 110/110 = 15 points;

Publications
max. points 15/100

- Articles in international journals with IF regarding the topic of the research (*impact factor*): 15 points;

Aptitude to research based on the curriculum
max. 30/100 points.

Practical and/or work experiences regarding the research topics.

MSc final work with high scientific relevance regarding the research topic.

Research contracts and/or scholarships regarding the research topic
max. 25/100 points

Evaluation criteria:

- Research contract regarding the research topic: 1 point for each month of activity
- Contract or scholarship regarding the research topic: 1 point for each month of activity

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

Number of authors

First author

Consistency with the scientific activity

Criteria for the evaluation for the interview:

No exams are required

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

Place of work: Bolzano Bozen

The gross annual remuneration: 22.040,00 Euro

Duration of the contract:

24 months without renewal.

10 Faculty of Science and Technology

I session 2018

Number of places: 1

PIS: 130333 (TN2091)

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 MULTIfbody dynamics in a MULTIfysics framework.

Description of the research activity:

This research activity includes

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

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

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

Preferential title:

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

Type of selection: Titles and exam.

The assessment criteria: will be decided by the commission in the first session.

Criteria for determining the part of the candidate in publications with more than one author: will be decided by the commission in the first session.

Criteria for the evaluation for the interview: will be decided by the commission in the first session.

Language of the exam: English

Duration of the exam:1 hour

Object of the exam:

In the oral exam the following points will be evaluated

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

Total minimum score necessary for admission to the oral exams: will be decided by the commission in the first session.

Total minimum score in order to declare the candidate suitable for the position: will be decided by the commission in the first session.

Place of work: Bozen / Bolzano

The gross annual remuneration: 29.000,00 Euro

Duration of the contract: 12 months

11 Faculty of Science and Technology

I. Session 2018

Number of places: 1

PIS: 130862

CUP: I53C17000400005

Supervisor: Prof. Dominik Matt

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

Competition sector: 09/B1 – Manufacturing technology and systems

Title of research project (+ acronym if necessary):
E-EDU 4.0 - NETWORK TRANSFRONTALIERO DI FORMAZIONE 4.0.

Programm Interreg Italia-Austria 2014-2020
Codifica locale ITAT3018-E-EDU 4.0

Description of the research activity:

The research activities comprise the supervision and support of the E-EDU 4.0 project, part of which includes the cooperation with the lead partner for ongoing coordination and the supervision of the communication work package in the project. From a scientific point of view, the project aims to build up a network of training and further education partners in the Italy-Austria region and to develop and offer innovative training courses in connection with Industry 4.0. Specifically, the research fellow is developing new seminars and training courses for students, companies and schools in the Smart Mini Factory Laboratory of the Free University of Bozen/Bolzano as a learning factory 4.0. In addition, the collaborator develops new topics and technologies related to industry 4.0 and its implementation in industrial companies and experiments with these technologies in the laboratory environment.

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

Master in Mechanical Engineering or Industrial Engineering.
Initial work experience in the industrial environment and experience in the field of innovative teaching methods and industry 4.0 are an advantage.

Preferential title: PhD in Mechanical Engineering or Industrial Engineering or equivalent foreign study title.

Type of selection: Qualification and test (oral interview).
The assessment criteria (max. 50 points):

Doctorate (phd) in accordance with the sector for which the position is activated, with a maximum of 5 points. Objective evaluation criteria: Relevance of the title for the research topic

The final grade with up to 20 points is determined as follows:

Grade: max. 10 points

Curriculum: objective evaluation criteria: Relevance of study plan, relevance of the scientific contents of the thesis on the research topic and relevant research experiences: max. 10 points

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

- Research fellowship or other cooperation agreements or work experience in universities, research institutions or private institutions related to the research area concerned: maximum 12 points.
- Training courses, conferences or summer schools on research-related topics, max 3 points;
- Proven experience in project management max 5 points

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

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

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

- (a) Proven experience in project management
- (b) Knowledge in CAD systems and/or digital planning systems
- (c) Experience in Lean Management and Industry 4.0.

Language of the exam: English

Duration of the exam: 30 min

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

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

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

Place of work: Bozen-Bolzano

The gross annual remuneration: 22.000,00 Euro

Duration of the contract:

12 months – The position could be prolonged of 1,5 years depending on financial issues and on the research performance.

12 Faculty of Science and Technology

I Session 2018

Number of places: 1

PIS: 130412 (IN2204)

CUP: I52F16000670006

Supervisor: Prof. Werner Nutt/Prof. Dominik T. Matt

Disciplinary-scientific sector: ING-IND/17 – Mechanical Industrial Plants

Competition sector: 09/B2 – Mechanical Industrial Plants

Title of research project: COCKPIT – COllaborative Construction Process Management

Description of the research activity:

Development of techniques to support the management of construction processes, in particular for supporting modelling, scheduling and monitoring of such processes. Conceptual development and implementation of software tools supporting these techniques. Leading role in the development of methodologies, in research activities in general, and in the publication of the results in scientific papers.

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

Minimum requirements:

Excellent knowledge of English

Scientific and professional profile:

Knowledge of programming techniques and languages for the development of web applications.
Doctorate in Computer Science or Engineering

Type of selection: Based on qualification and exam

The assessment criteria (max. 70 points):

1. Experience in the development and implementation of software systems (max. 20 points)
2. Working and research experience, evaluated with regard to the relevance for the project objectives, in particular on data management, decision support and cloud computing (max. 25 points)
3. Breadth and quality of the scientific publications (max. 25 points)

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

It is assumed that candidates contributed equally if nothing else is specified by the applicant.

Criteria for the evaluation for the interview:

1. Knowledge of design techniques and languages for the development of software systems, and specifically web applications.
2. Knowledge of English.

Language of the exam: English

Duration of the exam: 60 min

Object of the exam:

Evaluation of the knowledge of English and of the ability to develop web applications from the conceptual and implementation point of view.

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

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

Place of work: Bolzano-Bozen

The gross annual remuneration: EUR 29.000,00

Duration of the contract:

18 months: the duration can be extended by up to 11 months if there is a need for it to conclude the research project, depending on a positive evaluation of the work delivered and on the verified availability of the necessary funds.

Art. 2

Requirements for admission

- 1) Candidates must have completed the requirements at the expiry date for submission of the applications for admission to the selection procedure.
The Commission of selection, for the sole purpose of the aims of the present selection procedure, will evaluate the equipollence of the candidate's qualification title conferred abroad.
Italian citizenship is not required.

Art. 3

Accumulation prohibition

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

Art. 4

Incompatibility and compatibility

- 1) The following cannot be holder of research assistant contracts:
 - a) the personnel of the University, of public research and experimentation institutions and bodies, of the Agency for the New Technologies, Energy and Sustainable Economic Development (ENEA) and of the Italian Space Agency (ASI), as well as of institutions whose degree of scientific specialization has been recognized as equipollent to the qualification of research doctor following Art. 74, paragraph 4, of the DPR no. 382/1980;
 - b) the personnel in service by public administrations other than those indicated in letter a), except in case of unpaid leave by that administration, for the period of length of the research assistant contract;
 - c) those having family or kinship relation, up to the fourth degree, with a professor of the Department awarding the research assistant contract, with the Rector, the General Director or with a member of the University Council;
 - d) those attending university courses (triennial university degree or university degree pre-reform regime), a specialist or magister degree, a research doctorate with grant or medical specialization, in Italy or abroad.
- 2) The research assistant contract is furthermore incompatible with other didactic contracts with Universities and institutes in Italy or abroad, except as provided in Art. 5, paragraph 3 of the 'Regulation of the research assistant contracts according to Art. 22 of the law 240/2010', and with other contracts for research activities conferred by the Free University of Bozen-Bolzano.
- 3) The conferral of a research assistant contract is compatible with a collaboration contract or an intellectual work contract for research activities awarded by other universities and institutes in Italy and abroad, by approval of the person responsible of the research project.

Art. 5

Conditions for presenting the application for participation and publications

- 1) To participate in the present selection 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/?departments=22&group=18&year=2018>

within the **14.03.2018**.

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

Free University of Bozen – Bolzano
Personnel Office Academic Staff (call)
Piazza Università, 1 - C. P. 276
39100 Bozen-Bolzano

The application for participation in the selection procedures may also be directly handed in (opening hours: from Monday to Friday from 8:30 a.m. to 12:30 a.m. and 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 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).

The University disclaims liability for possible postal mis-deliveries.

- 3) On the package the candidate, in addition to the requirements mentioned in paragraph 2, must affix the inscription: "Application: selection procedure for the awarding of two fixed-time research assistant contracts for collaboration at research activity" and accurately indicate the faculty, the initials and the denomination of the disciplinary-scientific sector, the title of the research project and the candidate's name, surname and address for the present selection procedure (the address for the present selection procedure is the candidate's elected domicile for the receipt of the communications relating to this procedure).
- 4) On the application (see attachment 'A') the candidate must clearly indicate her/his name and surname and must declare, under own responsibility:
 - a) the date and place of birth;
 - b) the code of personal identification (fiscal code);
 - c) the residence, with the indication of the street, the street number, the town, the province, the postcode;
 - d) the possessed citizenship;
 - e) the municipality on whose electoral lists she/he is registered or the reasons for the non-registration or cancellation from such lists.
Foreign nationals must declare to enjoy civil and political rights in the country on which they belong;
 - f) not having been convicted of criminal offences and not having pending criminal suits (otherwise to indicate
 - g) not to exceed the superior limit of twelve years, also of non-continuous periods; therefore are considered the total duration of the contracts under Art. 22 (Research assistant contracts) and Art. 24 (fixed-time researchers) of the law 30th December 2010, no. 240, also between different universities, public, non-public or telematic ones, and with bodies as provided in Art. 22, paragraph 1 of the law no. 240/2010, as well as the duration of the contract of the present call;);
 - h) not to exceed the total duration of 6 years of the contracts under Art. 22 of the law 30th December

2010, no. 240 as amended (Research assistant contracts) including renewals and contracts between different universities/bodies, as well as the duration of the contract of the present call (the period of a Research assistant contract during a PhD study place with grant does not count within the regular study period);

- i) to have taken note of the provisions cited in the present call;
 - j) the content of the digital copies of all documents produced correspond to the content of the copies produced on paper;
 - k) the employment by a public administration according to letter b) of Art. 4 of the present;
 - l) not having family or kinship relation, up to the fourth degree, with a professor of the Department making the proposal of the activation of the contract, with the Rector, the Director or with a member of the University Council;
 - m) the declaration concerning the fulfillment of military duties (that declaration must be made only by male candidates);
 - n) that everything in the curriculum vitae (CV) that has been attached to this application is true and s/he gives the person in charge of the selection procedure the permission to undertake any checks on any substitute declarations that have been presented by the undersigned for the purposes of this selection procedure;
 - o) to give the permission for the use of personal details that s/he has supplied to be processed as per Italian legislative decree 196/2003 for any procedures that are connected to this selection procedure and any contracts that may be drawn up as a consequence;
 - p) the address chosen for the receipt of communications relating to the selection procedure she/he has applied for (address with postcode, telephone number, possible e-mail-address or fax number) and the commitment to inform the University in case of possible subsequent variations of those data.
- 5) Candidates with recognized disabilities must expressly specify in their application any aid needed in relation to their handicap and the possible necessity of further time for the performance of the exams, according to art. 20 of the law 5th February 1992, no. 104.
- 6) Any variation of the candidate's data according to paragraph 4 of the present article must be immediately communicated in writing to this Administration.
- 7) The University accepts no responsibility for cases in which candidates are untraceable or when the communications are undeliverable due to imprecise indication of the address, or belated or lack of notification on the part of the candidate regarding a change of the address declared in the application. The University also disclaims liability for mail going astray, whether third parties are to blame, or whether it is attributable to mishaps, or to *force majeure* and which, in any case, is in no wise ascribable to the University. It accepts no blame when the return delivery slip indicating receipt of the application, of documents or of communications relating to the selection procedures fails to arrive. If the candidate's address differs from that of her/his place of residence, again the University is exempt from responsibility should a registered letter with notification of receipt arriving at the place which the candidate had specified as his address during the period of selection, fail to reach her/him.

Art. 6

Presentation of qualifications

- 1) Considered that, in accordance to the present call, by 'qualifications' are intended those scientific, didactic and artistic ones and the publications, and for 'certificates' any document proving the possession of a certain qualification, the candidate must enclose at the application for participation in the selection procedure in unstamped paper:
- a) 1 copy of a valid identity document and the fiscal code;
 - b) 1 photocopy of the curriculum vitae regarding the didactic and scientific activity and drawn up according to the model of attachment 'C';
 - c) didactic and scientific qualifications believed useful for the comparative assessment;
 - d) 1 photocopy of the list of the publications believed useful for the comparative assessment and drawn up in accordance with article 7 paragraph 3 of this call;
 - e) 1 photocopy of the list of all documents enclosed at the application [generic list of those materially

inserted in the envelope, or the documents required by letters a), b), c) and d) of the present paragraph].

- 2) The qualifications indicated in paragraph 1, letter c), of the present article, if issued by 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 sending of the application for participation must be enclosed by the forwarding of the publications.
- 2) Publications will only be evaluated when they can be traced in public catalogues as publications.
- 3) Together with the publications, there must be enclosed a correspondent list, signed and dated at the last page. The Publications must be mentioned in 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. In that case a substitutive declaration of the deed of notoriety (to be drawn up according to the model of attachment 'B' and signed at the last page, with the production of a photocopy of an ID) must be attached, where the candidate, according to art. 47 of the D.P.R. 28th December 2000, no. 445, certifies the conformity of those produced with the original and indicates the author, the title of the work, the place and date of publication and the number of the work.
- 7) In case the candidate produces copies declared conform to the originals according to paragraph 7, letter

c), of the present article:

- a) for works printed in Italy it is also necessary to attest the date of deposit of the printing according to the law 15th April 2004, no. 106, put into effect with D.P.R. 3rd May 2006, no. 252;
- b) for works printed abroad the date and place of publication must be indicated.

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

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

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

- 9) The publications whose original language is different than Italian, French, English, German and Spanish must be translated in one of the above-mentioned languages.

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

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

- 10) For selection procedures concerning linguistic matters publications may be produced in the language or languages the selection procedure relates, even if different of those indicated in paragraph 9 of the present article.

- 11) The publication must be produced in any case, even in case they have already been submitted by this or other Administrations for participation at other selection procedures.

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

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

- 13) No scientific work sent to this Administration will be returned. Nevertheless, the candidates may require its posséss, except in case of pending controversy and according to the provision of the subsequent article 22, by going, personally or on behalf of a delegate, to the Personnel Office Academic Staff within the term of six months starting from the date of the Rectoral decree of confirmation of the regularity of the records. After this term has passed it is in the power of the University to dispose freely of the material not withdrawn.

Art. 8

Exclusion from participation at the selection procedure

- 1) The candidates are admitted conditionally at the selection procedures. Therefore exclusion through failing to meet the prescribed requirements is provided for with due decree of the Rector of the University at whatever stage of the procedure.

- 2) In particular, are excluded those:

- a) presenting an application which is not signed;

- b) presenting applications which, for any reasons, are not sent by post or consigned by the final deadline indicated in art. 5, paragraph 1 of the present call.

Art. 9

Renunciation of participation

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

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

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

Art. 10

Commission of Selection

- 1) The assessment is to be carried out by a Commission of selection, to be constituted of three members belonging to university staff from Italy or abroad.

The members of the Commission of selection must be active in the relevant research area or in the disciplinary area the research project or the research activity refers.

- 2) The members of the Commissions of selection are appointed by the Department requesting the selection procedure.
- 3) The Commission of selection is appointed by special provision to be published also on the University's web page.
- 4) The Commission of selection remains in charge for six months and may be renewed only once and for not more than four months.

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

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

Art. 11

Selection of the candidates

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

To sit the examination/s, the candidate must be equipped, with the exclusion of others, of one of the following currently valid documents of recognition provided in art. 35, paragraph 2 of the D.P.R. 28th December 2000, no. 445: identity card, passport, driving licence, railway record-book, postal card, firearms licence. The mentioned documents must contain a recent photograph of the candidate and her/his signature be authenticated by a mayor or a public notary.

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

Art. 12

Publicity and transparency of the selection procedure

- 1) The Commission of selection gives communication of the record containing the final merit ranking to the person in charge of the procedure for the subsequent measures.
- 2) In case procedural errors are discovered, the records are returned with due provision to the Commission of selection for regularization within the term indicated in the provision.
- 3) The results of the assessment will be published also on the University's web page.

Art. 13

Validity of the ranking according to merits

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

Art. 14

Formalization of the relationship

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

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

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

Art. 15

Suspension of the research

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

Art. 16

Rights and duties of the assistant researchers

- 1) The holder of the research assistant contract undertakes research activities provided by the research programs adopted by the related Department. He/she may collaborate with students in research activities relating to his/her degree thesis, participate at examination commissions and perform formal and informal didactic exercises.
- 2) The holder of the research assistant contracts may participate at groups and at research projects of the University/the Departments. The performance of those research activities does not confer a right of payment of a separate compensation.

- 3) The holder of the research assistant contract may be allowed a limited teacher-centered didactic activity (lessons, exercises, laboratories) for a maximum of 60 hours per academic year, provided that this activity does not interfere with the research activities. The hours of teacher-centered didactic are separately remunerated according to the "*Regolamento tariffario per i docenti a contratto, i supervisori e responsabili di tirocinio e i collaboratori linguistic*" in force.
Teacher-centered didactic activity may be decided by the Department, upon consent of the research assistant contract holder and upon authorization of the person responsible of the research project.
- 4) The research assistant contract holder, in order to carry out the research activity, may use the facilities of the Department he/she belongs and make use of the services available to the researchers according to the regulations in force.
- 5) The research activity is performed at the Faculty concerned or elsewhere, if expressly authorized by the person responsible for the scientific activity the research assistant contract holder belongs. If the research assistant contract holder authorized to perform research activity externally must undertake duties in connection with the research, he/she has the right of refund of expenses according to the rules and conditions set out by the "Regulation concerning service missions of teaching and research staff".

Art. 17

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

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

Art. 18

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

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

- unjustified missed beginning or unjustified delay of the activity;
- unjustified suspension of the research activity for a period which is prejudicial to the research program;
- grave violation of the incompatibility rules provided by the present Regulation.

Art. 19

Loss and withdrawal

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

Art. 20

Attendance of research doctorate courses

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

Art. 21

Economic and fiscal treatment, social security

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

Art. 22

Return of publications

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

Art. 23

Protection of personal data

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

Art. 24

Person in charge of the procedure

- 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 0 11310, fax +39 0471 0 11309, e-mail: personnel_academic@unibz.it.
- 2) On the web page <https://www.unibz.it/en/home/position-calls/positions-for-academic-staff/?departments=22&group=18&year=2018>

expressly dedicated to the selection procedure are available all relating information about the progress report of the Commission of selection's works as well as the relating deadlines.

Art. 25

Referring provisions

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

Bozen-Bolzano, 07.02.2018

Decree no. 88/2018

The Rector
Prof. Paolo Lugli

