

CALL FOR APPLICATIONS FOR THE AWARD OF PRIZES TO THE RESEARCHERS OF THE SCUOLA SUPERIORE SANT'ANNA AFFILIATED WITH THE DEPARTMENT OF EXCELLENCE IN ROBOTICS & A.I. ISSUED BY THE DEPARTMENT COORDINATOR_PROTOCOL NO. 0019043 DATED 17/11/2020

REPORT OF THE FIRST MEETING

The Evaluation Committee for the call for applications for the award of prizes to the researchers of the Scuola Superiore Sant'Anna affiliated with the Department of Excellence in Robotics & A.I., appointed by the Department Coordinator, protocol No. 0019043/2020, consists of:

- Prof. Michela Milano, Full Professor of Information Processing Systems at the University of Bologna, expert in Artificial Intelligence;
- Prof. Bram Vanderborght, Vrije Universiteit Brussel, expert in Materials Science;
- Prof. Mario Enrico Pè, Full Professor of Agricultural Chemistry, Agricultural Genetics and Pedology, Dean of the Faculty of Experimental Sciences.

The Committee convened for the first time, via teleconference, on December 18th 2020, at 11.00 from the following locations:

Prof. Milano located in Bologna, connected via: Cisco Webex

Prof. Vanderborght located in Brussel, connected via: Cisco Webex

Prof. Pè located in Pisa , connected via: Cisco Webex

Prof. Mario Enrico Pè was nominated as Chairperson and Prof. Michela Milano was nominated as Secretary.

The Committee reviewed the call published on the School website

<https://www.santannapisa.it/it/selezioni-e-concorsi/premialita-dipartimento-di-eccellenza-robotica-e-intelligenza-artificiale>.

In accordance with the call, the Committee will attribute a total score of **100 points**, according to the criteria assessed in the present meeting.

The Committee will define two rankings, **one for the theme AI** and **one for the theme Materials Science**.

The winners of each rankings for each research topic will be declared based on the scores obtained. In the event of a tie, the youngest wins.

The Committee defined the criteria for the score attribution to the *curriculum*, the publications, the teaching activities and the third mission activities of the candidates.

The Committee, as established in the Call, will assign a **maximum score of 100**, allocated as follows:

- **Overall researcher's curriculum** normalized by academic age, defined as the number of years that have passed since their first publication (**max 30 points**).

Not normalized scores (baseline) are obtained by summing the following scores up to a maximum of **60 points** considering the following aspects:

1. Total scientific production (**max 30 points**);

The score for each publication is obtained as follows:

$$\text{H-index} \quad \text{max 5} \quad P1 = 5 * H/\text{max_H}$$

$$\text{Citation count} \quad \text{max 5} \quad P2 = 5 * \text{Citations}/\text{max_Citations}$$

$$\text{Total \# of journals} \quad \text{max 10} \quad P3 = 10 * \text{Journals}/\text{max_Journals}$$

$$\text{Total \# of inter. conf.} \quad \text{max 10} \quad P4 = 10 * \text{Conferences}/\text{max_Conferences}$$

$$\mathbf{P_{pub} = P1 + P2 + P3 + P4}$$

where max value represents the higher value of the parameter among all candidates.

2. Participation to a Program Committee and/or Editorial Board (**max 15 points**);

The score for the Participation to a Program Committee and/or Editorial Board is calculated as follows:

$$\text{Associate Editor} \quad \text{max 5} \quad P1 = 5 * \#\text{AE}/\text{max_AE}$$

$$\text{PC/Track Chair} \quad \text{max 5} \quad P2 = 5 * \#\text{roles}/\text{max_roles}$$

$$\text{PC member} \quad \text{max 5} \quad P3 = 5 * \#\text{roles}/\text{max_roles}$$

$$\mathbf{P_{edi} = P1 + P2 + P3}$$

where max value represents the higher value of the parameter among all candidates.

3. Recognitions and Awards (**max 15 points**)

The score for Recognitions and Awards is calculated as follows:

$$\text{Best paper awards} \quad \text{max 10} \quad P1 = 10 * \#\text{BPA}/\text{max_BPA}$$

$$\text{Other awards} \quad \text{max 5} \quad P2 = 5 * \#\text{others}/\text{max_others}$$

$$\mathbf{P_{awa} = P1 + P2}$$

where max value represents the higher value of the parameter among all candidates.

The score to the CV is thus calculated: $\mathbf{P_{cv} = P_{pub} + P_{edi} + P_{awa}}$

Normalization is achieved according to the academic age:

$$\mathbf{P_{norm} = \min(30, P_{cv} E_{min}/E)}$$

where P_{base} is the non-normalized base score (between 0 and 60), E is the academic age of the candidate, E_{min} is the minimum academic age among all candidates.

For example, if a candidate with academic age $E = 3$ has a base score of 54 and the minimum academic age is 2, the normalized score will be 30, as $54 * 2/3 = 36$ is greater than 30. For a candidate with academic age $E = 4$ and base score of 56, the normalized score will be $56 * 2/4 = 28$.

- **Scientific publications** pertaining to the Department themes (**max 40 points**).

In particular, a maximum score of 10 points is assigned to each publication, based on the relevance to the themes to the Department of Excellence in Robotics and Artificial Intelligence, the editorial location, the number and order of authors. Each candidate may submit a maximum of 5 publications accepted or published in the period from 1 January 2018 to 31 May 2020. All scientific publications relevant to the topics of the Department of Excellence will be evaluated, with particular reference to those bearing double affiliation and/or the acknowledgment.

- **Teaching activities** related to the Department themes (**max 10 points**).

The score must be assigned according to the total hours of teaching carried out on courses relating to the themes of the Department, the type of course (three-year, master's, industrial training, master's, PhD). Given N_{phd} , N_{mas} , N_{und} the number of courses provided to PhD, Master, and undergraduate students respectively, and given MAX_{phd} , MAX_{mas} , MAX_{und} the corresponding maximum values among all candidates, score for didactic is calculated as follows:

$$P_{\text{did}} = 3N_{\text{phd}}/MAX_{\text{phd}} + 2N_{\text{mas}}/MAX_{\text{mas}} + N_{\text{und}}/MAX_{\text{und}}$$

- **Third mission activities** related to Department themes (**max 20 points**). Other activities to consider in the assessment include:
 - a. Participation in research projects according to the number of projects, their relevance to the themes of the Department role and contribution (**max 12 points**). The score is calculated by assigning:
 - 3 points** for each project in which the candidate is Principal investigator;
 - 2 points** is research coordinator;
 - 1 point** for each project in which the candidate is a participant.Total score cannot exceed 12 points
 - b. Involvement in startups or spin-offs that deal with Department issues (**max 5 points**)
 - 2 points** per each spin-off to which the candidate participate, up to 5 points.
 - c. Patents of products related to the Department topics (**max 3 points**).

1 point per each patent in which the candidate is involved, up to 3 points.

The final score for the Third Mission Activities is calculated as:

$$P_{3mis} = P_{project} + P_{spinoff} + P_{patent}$$

For the purposes of assigning scores (for the items in which it is requested), the activities carried out by the candidates will be evaluated according to their relevance to one of the two research themes of the Department, also considering their potential application (even if not explicitly mentioned) to the robotics sector. Conversely, activities in the robotics sector that do not involve the specific areas of action of the Department will not be considered relevant and not considered.

The Committee ascertained that Staff Office communicated that ten applications have been received: 7 for the topic AI e 3 for the topic Materials Science, whereby all the candidates have been admitted to the selection. All members have received to the list of the candidates (Attachment 1) and, pursuant to Art. 5 paragraph 2 of Legislative Decree No. 1172/1948, each member declared to have no kinship or affinity up to the fourth grade with any of the other members and that there are not reasons for abstention in relation to art. 51 of c.p.c.

The Committee decides to reconvene on April 8th at 10:00 in order to assess the scientific publications, curriculum and the teaching experience of the candidates.

At the end of the meeting, the Committee decided that the Chairperson would send a signed copy of this agreed minute to Staff Office, together with the declarations of approval by the other members of the Committee. These declarations form an integral part of this agreed minute.

The following minute was agreed on and approved by the members of the Committee.

The meeting was adjourned at

THE COMMITTEE

The Chairperson, Mario Enrico Pè

