



MED 2021

29th Mediterranean Conference on Control and Automation

JUNE 22 – 25 2021, BARI, ITALY, <http://med2021.poliba.it>

Workshop Session at MED 2021 on

Research and innovation development in the gender equality perspective

Abstract

According to data produced by the UNESCO Institute for Statistics (<https://en.unesco.org/news/just-30-world%E2%80%99s-researchers-are-women-whats-situation-your-country>) just 30% of the world's researchers are women. However, there are also exceptions and discrepancies among and within the various countries that merit to be furtherly investigated. As an example, Bolivia with its share of 63% of female researchers contrasts with the France situation where only the 26% of the researchers are women. In addition, differences also regard private and public sectors, with a prevalence of man in those areas characterized by higher average incomes.

Notwithstanding all the listed discrepancies, in almost every region gender gaps are generally characterized by two facets: firstly, in the pipeline leading to a research career, numbers referred to women decline as they move up the education ladder; furthermore, women researchers remain always and everywhere a narrow minority in the fields of science, technology, engineering and mathematics (STEM).

These occurrences are responsible of various drawbacks affecting research and different perspective should be considered.

From the equity point of view, there is the unfairness of a situation which precludes the plain development of every involved individual, but, most importantly, the content of research can be also negatively affected, because theories and methods and concepts could be influenced by a lack of perspective preventing new ideas from coming up and developing

As a matter of fact, the integration of gender analysis in relation to intersecting factors in research could add new perspectives in many fields and trigger new possibility of development.

Therefore, analyzing gender and factors intersecting with gender could play a crucial role for innovation purposes.

This workshop aims at addressing the issue, pondering on the possibility that gender and intersectionality could be considered within various fields of interest as, for example: control and automation, Energy efficient systems, Smart cities, Smart logistics and mobility, robotics, building automation, etc.

Furthermore, the workshop also focuses on the methods and processes that could foster gender equality within the scientific community, sharing experiences and practices.

Duration half of a day

Preferred mode of presentation: Online

Organizers:

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List of topics

The workshop aims at exploring the possibility of improving the innovation potential of research activities by paying attention to a more gender balanced composition of the working groups and by introducing an inclusive approach of analysis where different aspects are considered: gender, intersectional factors (ethnicity, age, disability, income levels, etc.).

Moreover, the achievement of equal opportunities in research contexts, especially involving STEM areas, is to be considered as the ground where a creative and fair environment could thrive. How can equal opportunities supported in research context?

Discussion on this topic is crucial for the future research activities. Here a list of example topics, on which debate is solicited, is reported. It is not exhaustive, but it provides instances of the entailed point of view.

The end user perspective

Aspects of the research themes often depend on the specific characteristics of the end users (e.g. user dependent security devices and/or systems).

The analysis should take this point of view into account, considering the features (gender identities, sex, age, ethnicity, profession, occupation, education, income, household and living arrangements, familiarity with and attitudes towards technology, etc.) of consumers of technology, thereby allowing a better exploitation of both market opportunities and innovation potential of the research outcome.

This perspective may regards different topic like the examples reported in the following non-exhaustive list.

- *Smart Energy Solutions/Energy Efficient systems*
where the effectiveness of the solutions is strictly linked to the diffuse acceptance of new technologies, devices services and systems by the final users, so that the integration of gender and intersectional analysis into energy research could play a pivotal role;
- *Smart Mobility and logistics*
Mobility patterns are connected to the user's features and needs. In order to close the gap between gender-specific needs and new smart mobility services, when transportation system are planned it is important that all the involved facets are properly considered.
- *Robotics/Human machine interaction*
where the attribution of specific characteristics can foster stereotypes; so that the design of robots and artificial intelligence do not simply create products according to the user's expectations, but it may also reinforce certain rules and patterns considered appropriate for entire categories of people (women, men, elderly, etc).



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Equality in science and Research

Science, by nature should be based on the recognition of one's merit, competences and creativity, regardless of any other personal feature or orientation. Notwithstanding this vastly accepted principle, women's participation in science and technology is currently limited to an extent which undermines the assumption that competence and merit are being rightly valued.

This is a problem not only for the unfairness of such a condition, but also because of the potential which might be being lost.

Therefore, it is time to structure effective actions triggering a real change also for the sake of the plain development of the innovation potential of the research.

The design of these actions and measures involves various subjects: Government Institutions, Research Institutions, Research funding Institutions and so on.

The contribute that each of them could give to make all the designed actions and measures effective is a matter which merits to be investigated and discussed.

Speakers:

Dr Brigitte Ratzler

Head of Office for Gender Competence, Vienna University of Technology (TU Wien), Austria.

Researcher at TU Wien with research-projects in the fields of Bioethics and Biomedical Technology-Assessment, Social Studies of Knowledge and Feminist Research in Science and Technology. She is also currently engaged in building up a network for transferring feminist and gender knowledge to engineering research groups and to the curricula.

Contribution: shaping innovation in automation and robotics from a gender and diversity perspective

Prof. Lidia Zakowska

Cracow University of Technology (Poland) Faculty of Civil Engineering, She is leading the Section of Transport at the Civil Engineering Faculty.

Author of over 100 research publications, she has led numerous Research Grants and Projects, on national and international levels, including transportation studies.

Contribution: The women contribution to the GE in engineering in relations to the 17 UN Sustainable Development Goals, especially SDG #5: "Gender Equality"

Possible title: "Engineering without border"

Dr. Agostina Allori

LL.M in Human Rights, Central European University and LLM, Michigan Law School.

Core team member of Yellow Window (www.yellowwindow.eu) for H2020 CASPER project (<https://www.caspergender.eu>) regarding the design of a GE certification scheme for research institution

Contribution: the role of certification and award schemes for boosting gender equality

Dr. Donia Lasinger

PhD in Strategic Management and Innovation. Deputy, management consultant in a national and international surrounding. Currently managing director at the Vienna Science and Technology Fund (WWTF)

Contribution: changing the game as a research funder – dream or reality



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Dr. Yvette Ramos

Binational France-Portugal, MsSc.Eng.(EPF) and MBA(IAE), she is an expert and international Consultant, working in project management positions for hydromet and climate services. Moreover, she is the Managing Director of an Intellectual Property Law firm based in Geneva since 2012. First woman president of the +100 years aged Swiss Engineering Geneva chapter, she president and principal cofounder of WOMENVAI, an NGO not-for-profit aiming at mentoring girls and women in their STEM projects and ambitions.

Contribution: mentoring girls and boosting women in their STEM careers: yet a key challenge in the XXIst century that we all need to overcome

Prof. Maria Nadia Postorino

PhD in Transportation, full professor of Transportation Engineering at the University of Bologna, former vice Rector for Equal Opportunities at the University Mediterranea of Reggio Calabria, involved in many international and national research projects and scientific committees. Invited researcher at the Collegium de Lyon-IEA, ENS - Université de Lyon, Visiting Professor at the School of Computing-University of Portsmouth and at the University Paris 1 Panthéon-Sorbonne. Component of the Scientific Committee of the Ecole Nationale des Ponts et Chaussées (France) and of Naval Group (international naval company)

Contribution: fostering gender equality within the research institutions: the experience at the Mediterranean University of Reggio Calabria