

## Green Talents 2019

### Australia

**Dr Lizzy LOWE**, Researcher in Urban Ecology; Research focus: Urban ecosystems, biodiversity, impact of insecticides; MACQUARIE UNIVERSITY, AUSTRALIA

*The jury was impressed by Lizzy's fascinating research on the highly charged topics of biodiversity and pesticides. The jury believes that her work will contribute to making cities more sustainable and a better place to live.*

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### Brazil

**Luísa CORTAT SIMONETTI GONÇALVES COUTINHO**, PhD Student in Law; Research focus: International environmental law, legislative, private, and corporate initiatives to reduce plastic pollution in the oceans, fundamental rights and duties (human rights); VITÓRIA COLLEGE OF LAW, BRAZIL

*Profound legal expertise is desperately needed in dealing with international environmental problems such as plastic pollution of the oceans. Because of this and her international engagement as volunteer and consultant the jury voted for Luísa to become a Green Talent awardee.*

**Marcelo MENEZES MORATO**, PhD Student in Control and Automation Engineering; Research focus: Control and automation engineering, microgrids, and renewable energy; UNIVERSIDADE FEDERAL DE SANTA CATARINA, BRAZIL

*The jury was impressed by Marcelo's practical approach to make the integration of renewable energy sources possible and less prone to errors. Control and automation engineering is of great importance to realise transitions to a more sustainable energy mix while minimising conversion difficulties. Marcelo's work is of great relevance in this transition.*

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## Cameroon

**Ernest Dadis Bush FOTSING**, PhD Student in Zoology with Specialisation in Primatology; Research focus: Ecology and evolutionary biology, conservation of biodiversity; UNIVERSITY OF DSCHANG, CAMEROON

*The jury was impressed by Ernest's publications and by his research supporting the conservation of a threatened key species. Apart from his research, he is involved with NGOs and plans to support young Cameroonians interested in conservation of biodiversity and wildlife.*

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## Canada

**Sierra ISON**, PhD Student in Marine Social Science and Conversation; Research focus: Marine social science, stakeholder engagement, participatory conservation; UNIVERSITY OF TASMANIA, AUSTRALIA

*Sierra's strong interdisciplinary interest and her comprehensive approach, which includes government, industry, and community as partners in building smart integrative solutions for environmental problems convinced the jury.*

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## China

**Sai MA**, PhD Student in Law; Research focus: Law, international investment arbitration, energy transition and climate change; THE CHINESE UNIVERSITY OF HONG KONG, CHINA

*The jury appreciated Sai's transdisciplinary expertise and her ability to relate several important issues to each other. As she is addressing a research gap in a determined and deeply sophisticated way, the jury was convinced that Sai's study will make a significant contribution to the implementation of sustainable policies from a legal perspective.*

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## Ethiopia

**Mahder MEKONNEN SHUMI**, Lecturer in Aquatic Toxicology; Research focus: ecotoxicology, wastewater treatment and water quality; ADDIS ABABA UNIVERSITY, ETHIOPIA

*The jury was truly convinced by the work of this young, engaged scientist because of her practical approach to a highly relevant problem especially in developing countries, addressing the UN Sustainable Development Goal No. 6: Ensure access to water and sanitation for all.*

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## Ghana

**Georgina Esi TAKYI-ANNAN**, Graduate Researcher in Architecture, Research focus: green and sustainable design approach to achieve affordable housing in developing countries and West Africa; SOUTHEAST UNIVERSITY, CHINA

*The jury had the impression that Georgina is pursuing her goal with her heart and soul, stressing that her research could help to raise awareness for sustainable architecture and also help to tackle some of the challenges that come with the implementation of green buildings. In addition, the weighting of the valuation was positively influenced by the fact that Georgina has already participated in many significant sustainability research projects.*

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## India

**Debanjan DAS**, PhD Student in Chemistry; Research focus: Material science, water splitting, hydrogen production, and electro-catalysts; INDIAN INSTITUTE OF SCIENCE, INDIA

*The jury especially valued Debanjan's contribution to electrolytic hydrogen technology which is highly significant to the storage of solar energy. They also lauded the versatility of his research and in regard to glucose sensors his practical approach to an urging medical issue.*

**Priyanka SARKAR**, PhD Student in Ecology and Environmental Science; Research focus: Ecosystem services, conservation and sustainable management of wetlands; ASSAM UNIVERSITY, INDIA

*The jury was convinced by Priyanka's strong interdisciplinary interests and her comprehensive approach to her topic. Through this, her study can set an important impulse for sustainable management of tropical wetlands. Besides her research she is engaged in various awareness and conservation programmes involving the local communities.*

**Dr Vikram SONI**, PhD in Mechanical Engineering; Research focus: Phase change material-based waste energy storage and recovery for comfort management, and thermal performance enhancement using nanoadditives; INDIAN INSTITUTE OF TECHNOLOGY KANPUR, INDIA

*The jury recognises Vikram's important contribution to finding solutions for sustainable and affordable energy available to people in developing and emerging countries. The jury also values his engagement in a technical society to provide much-needed exposure to real-life engineering problems for researchers and students.*

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**Dr Sheikh Adil EDRISI**, PhD in Environmental Science and Sustainable Development; Research focus: Land management, bioenergy, and ecosystem services; BANARAS HINDU UNIVERSITY, INDIA

*The jury was very impressed by Adil's strong interdisciplinary interests and his work on finding promising solutions for the use of formerly "useless or neglected" land with multiple benefits. Through this, these lands can become a driving force to meet several SDGs simultaneously, which is imperative not only for the smart and sustainable land utilisation in India but for the global land management.*

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## Iran

**Mohammad RAMEZANI TAGHARTAPEH**, PhD Student in Chemistry/Material Sciences; Research focus: Chemistry and material sciences; SWINBURNE UNIVERSITY OF TECHNOLOGY AND THE COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION, AUSTRALIA

*The jury acknowledged that Mohammad's research is highly relevant since all-organic and metal-organic batteries are an important contribution to make electromobility even more sustainable.*

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## Jordan/Palestine

**Manar ABDALRAZEQ**, PhD Student in Biotechnology; Research focus: Development of bioplastics, reduction of waste; UNIVERSITY OF NAPLES FEDERICO II, ITALY

*The jury was convinced by the highly significant and interesting research topic – avoiding micro plastic pollution by using food industry waste to produce degradable bioplastic – of this committed, young scientist who also authored relevant publications.*

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## Lebanon

**Dr Jean EL ACHKAR**, Researcher in Waste Management and Renewable Energy; Research focus: Anaerobic digestion, green energy, and waste management; SAINT JOSEPH UNIVERSITY OF BEIRUT, LEBANON

*Jean's expertise in biology, biochemistry and process engineering combined with economic knowledge attracted attention of the jury. They were impressed by Jean's great interest in and commitment to innovation and in transferring his results to practical use.*

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## Malaysia

**Dr Andrew Ng KAY LUP**, PhD in Chemical Engineering; Research focus: Role of excitons and polarons on the pseudocapacitance of polymeric layered perovskite; UNIVERSITY OF MALAYA, MALAYSIA

*The jury appreciated Andrew's strong interdisciplinary interest and his highly relevant work in the field of material sciences. Battery technology is highly significant for the further development of electro mobility.*

**Yee Qing LAI**, PhD student in Chemical Engineering; Research focus: Pinch analysis, industrial heat recovery, heat exchanger network retrofit; UNIVERSITI TEKNOLOGI MALAYSIA, MALAYSIA

*The jury acknowledged that this promising scientist is developing a method to increase energy efficiency with direct practical use for manufacturing processes, potentially saving large amounts of greenhouse gases from being emitted into the atmosphere.*

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## Morocco

**Karima EL AZHARY**, PhD Researcher in Energy Efficiency; Research focus: Building insulation, bioclimatic architecture, energy efficiency, and sustainability; MOHAMADIA SCHOOL OF ENGINEERS, MATERIAL, ENERGY AND ACOUSTIC TEAM, ESTS, MOHAMMED V UNIVERSITY OF RABAT, MOROCCO

*A great commitment that allows an innovative and inspired research approach to a relevant sustainability issue such as energy efficiency – this is what the jury highly appreciated in Karima's application. In addition, her volunteer activities have been positively noticed as she is the coordinator of Alrq Forum in Rabat, which aims to encourage young people to invest in social entrepreneurship.*

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## Nepal

**Samjhana KHANAL**, Master's Student in Plant Breeding and Genetics; Research focus: Plant breeding, genes and genomics, and biotechnology; WAGENINGEN UNIVERSITY & RESEARCH, NETHERLANDS

*The jury recognised the importance of this socially engaged, talented, and young scientist's work: to not only find more resistant seeds but to improve the grain harvested to fight malnourishment.*

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## Nigeria

**Emmanuel OLAMIJUWON**, PhD Student in Demography and Population Studies; Research focus: Sexual and reproductive health, digital demography, and adolescent health; UNIVERSITY OF THE WITWATERSRAND, SOUTH AFRICA, AND UNIVERSITY OF ESWATINI, ESWATINI

*The jury lauded the value of Emmanuel's project for the sexual health awareness of young people in African countries. His research could also contribute to a wider access to sexual and reproductive health care information services and education.*

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## Papua New Guinea

**Yalinu POYA**, PhD student in Chemistry; Research focus: Metal catalysts for ammonia synthesis in the Haber-Bosch process; UNIVERSITY OF GLASGOW, UNITED KINGDOM

*Above all, it was Yalinu's fresh perspective on addressing the UN Sustainable Development goals and global challenges, such as food and energy security, climate change, and energy generation from renewable sources, that made the jury's choice easy. They are confident that winning the Green Talents award will take Yalinu one step closer to her lifelong goal to work with an organisation that contributes to improving the livelihoods of people, bettering society, tackling environmental issues and fulfilling the UN Sustainable Goals.*

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## Republic of Korea

**Jaewon SON**, MA in International Development and Cooperation; Research focus: International development, gender equality, and access to water, sanitation and hygiene; INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT (IFAD), ITALY

*Jaewon's interdisciplinary approach and her dedication to this highly relevant topic related to sustainability impressed the jury. This committed young scientist clearly points out that WASH can become a driving force for gender equality and thus for sustainable development in general.*

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## South Africa

**Kathryn Anne ARNOLD**, Master's Student in Geomatics; Research focus: Research focus: Geoinformatics and advanced geospatial analysis for urban and regional planning support; COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH (CSIR) and UNIVERSITY OF CAPE TOWN, SOUTH AFRICA

*The jury was impressed by the work of this promising, young scientist. Spatially distributed population projection data will help to plan sustainable settlements. Her research is of great importance for her home country as well as worldwide.*

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## Spain

**Dr Rubén MOCHOLÍ MONTAÑÉS**, Postdoctoral Researcher in Energy and Process Engineering; Research focus: Energy and process engineering and dynamic modelling; CHALMERS UNIVERSITY OF TECHNOLOGY, SWEDEN

*Rubén's use of the promising digital twin technology attracted positive attention of the jury. It is considered a convincing approach to more emission reduction and flexible operation of thermal power plants and energy-intensive industrial processes.*

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## United Kingdom

**Benjamin KEENAN**, PhD student in Biogeochemistry; Research focus: climate change, geochemistry, and ancient societies; MCGILL UNIVERSITY, CANADA

*The jury recognised Benjamin's research as an interesting new, transdisciplinary perspective on population development in correspondence with a changing climate.*

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