Proceedings of the Indian National Science Academy (2021) 87:1
https://doi.org/10.1007/s43538-021-00024-7

EDITORIAL

Editorial

Pankaj Kumar[1] · Charu Lata[2] · Mudrika Khandelwal[3]

The Indian National Young Academy of Sciences (INYAS) functioning under the aegis of Indian National Science Academy (INSA), New Delhi is an academy of talented young scientists. INYAS has carved out a niche for itself since its inception in the year 2015 in not only attracting the youth towards science but also in disseminating the excitement of science at pre-college and university levels, as well as in establishing a network of young scientists in India.

A crusader for science communication, dissemination and outreach, INYAS embraces a wide spectrum of stakeholders ranging from young scientists and professionals from academia, research institutions, and industries to decision-makers and policymakers and even to students at school and university levels. Realizing the importance of giving young scientists and researchers an opportunity and platform to showcase the exciting work being done by them, INYAS has joined hands with the Proceedings of the National Science Academy (PINSA), a multi-disciplinary journal of INSA in bringing out a series of Special Issues for young scientists and managed by young scientists.

Given the overwhelming response to the first and second special issues, it gives us immense pleasure in bringing out the 3rd Special Issue of PINSA by INYAS. This Special Issue contains 20 original research articles and reviews on contemporary topics in all areas of science (Physical and Chemical sciences/Biological Sciences/Applied Science/Earth and Environmental sciences, Mathematics and Engineering and Technology). Articles published in this Special Issue in the Biological Sciences category have extensively covered diverse and extremely important topics including the role of genetic engineering in improving abiotic stress tolerance in cereal crops; soil quality improvement; the biology and regulation of trichome development in plants; and the biodiversity of invasive plants in the Indian Himalayan region and North-East India as well as those of mangroves from Sunderbans delta and Kerala. The issue also includes research articles on drug release behaviour and development of drug delivery systems for healthcare. Further, there is also an essence of circularity built in by incorporating a review on value added products from agroindustry bi-product and kinetic study for the removal of heavy metals by the agroindustry bi-products and fungal biomass. In the mathematics category, one articles proposes a new radical third root functional equation and determine its solution in the domain of positive real numbers; and other articles defines a third generalization of hollow-lifting module namely finitely-hollow-weak lifting (f-hollow-weak lifting) module. In physical sciences category, articles are focusing on the hydrogen atom rearrangement in ammonia under ion impact, characterization and applications of ferroelectric liquid crystal mixture W315 and an original work on the production of low-cost anodes for energy storage. One paper in the earth science category discusses the morphotectonic analysis of the Bihar river, Madhya Pradesh. Other articles are on the development of a handheld potentiostat with open-access mobile-interface, development of a research strategy using bibliometric-data driven approaches that integrate network analysis and information management, without the need for full paper access and development of an algorithm for a personalized diagnosis of cardiovascular disease.

We believe that with this Special Issue once again INYAS shows its commitment towards providing opportunities to young researchers for presenting their work and also in establishing research collaborations in future.

We are thankful to the INYAS core-committee, anonymous reviewers and editorial staff PINSA for their immense support and help for timely completion of 3rd Special issue by INYAS.

This editorial is part of the Special Issue: Indian National Young Academy of Science (INYAS).

✉ Pankaj Kumar
baghelpankaj@gmail.com

Charu Lata
charulata@niscair.res.in

Mudrika Khandelwal
mudrika@iith.ac.in

[1] Inter-University Accelerator Centre, New Delhi 110067, India

[2] CSIR-National Institute of Science Communication and Information Resources, New Delhi 110067, India

[3] Indian Institute of Technology Hyderabad, Telangana 502285, India