

News Letter National Academy of Biological Sciences

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Contents

From the Desk of President

...... 1

Message from Vice-President

.....2

Message from Editor

..... 2

Enroll yourself as member of NABS

From the Desk of President.....



Dear NABSians,

Warm greetings to all NABSians.

I am writing this message with mixed feelings. While we are happy that we could conduct the NABS conference and award ceremony after two years, I am at a loss to inform the sad demise of our wellwisher and adviser, Dr. Kirti Singh. In fact, he passed away on 23rd January when we were conducting the inaugural function of 13th NABS-National Conference.

I am happy that the 13th NABS-National Conference with the theme, "Current Perspectives for Sustainable Development in Life Sciences, Environment and Agriculture" organized in collaboration with Perivar University Salem from 23 to 25 January, 2023 was a grand success because of your continued patronage and support.

I thank the Vice Chancellor, Prof. Dr. R. Jagannathan and the Registrar (FAC), Dr. R. Balagrunathan and the whole team the Periyar University staff and scientists who toiled to conduct this event in a grand manner.

I also take this opportunity to congratulate all the members of NABS who received their credentials of Fellowship and other awards of NABS for the Election Years-2019, 2020 and 2021.

Though, on one side, we could cherish the memories of the grand successful event, on the other side our heart broke on hearing the demise of Noni Ratna Prof. Dr. Kirti Singh on 23 January, 2023. Prof. Dr. Kirti Singh decorated several positions, to mention a few, was the Chairperson, World Noni Research Foundation; Founder President. International Society for Noni Science, Chennai; Chairman Agricultural Scientists Recruitment Board, ICAR, New Delhi; Vice Chancellor, NDUAT, Faizabad (UP); KPKV, Palampur (HP); IGKV, Raipur; Secretary, National Academy of Agricultural Sciences, New Delhi.

Prof. Dr. Kirti Singh, the laureate of the prestigious awards of NABS- viz., Prof. S. Kannaiyan Memorial Award for 2013 and Dr. APJ Abdul Kalam Memorial NABS-Life Time Achievement Award for 2019 was a guiding spirit for NABS.

I join all the members of NABS to condole the demise of Prof. Dr. Kirti Singh and pray the ALMIGHTY to give all the strength to bear the great loss to his family members, especially to Mrs. Indira Singh, his sons and grand-daughters and grandsons.

With Best wishes

Parthasarathy)

President, NABS

Message from Vice-President...



Dear Members of NABS,

Dear Members of NABS,

Warm Greetings from NABS.

We the members of NABS were so shocked and saddened to hear the news during the annual conference of the Academy held at Periyar University, Salem during Jan 23-25, 2023 that Dr. Kirti

Singh is no more with us. He was so close and attached to NABS guiding us always in the right direction. We pray that his soul rests in peace and our condolences to the bereaved family.

Now we are in a period of climate change with far-reaching implications on human health, security and well-being. One of the areas that is affected by climate change is agriculture, where it is affecting crop productivity and food security. Rising temperatures, extreme weather events and changing precipitation patterns are altering the growing conditions for crops, making it more difficult for farmers to produce food and feed a growing population. As temperatures rise, heat stress affects the photosynthesis, growth, development and yield of crops. Changes in precipitation patterns can lead to soil moisture deficits resulting in water stress and heatwave, these can also negatively impact crop yields. Moreover, climate change is also exacerbating the spread of pests and diseases, which are further undermining crop productivity. For example, warmer temperatures are allowing pests to expand their range, damaging crops and reducing their yields. In order to mitigate these impacts and ensure food security, it is critical that we take action to reduce greenhouse gas emissions and increase the resilience of agriculture to the impacts of climate change. This can involve a range of measures, such as improving crop breeding, promoting sustainable agriculture practices, crop diversification, use of drought-tolerant crops and investing in infrastructure and research to support the adaptation of agriculture to changing conditions. In conclusion, climate change is a major challenge for agriculture and food security, and requires urgent and sustained action from governments, the private sector, and individuals around the world. By taking steps to address these challenges, we can ensure a secure and sustainable future for ourselves and generations to come. We members of NABS, being biologists can try our best to contribute towards this goal.

Message from Editor in Charge



Dear Members of NABS, *Greetings*.

We the NABSians are deeply shocked to hear the demise of an eminent horticulturist, Dr. Kirti Singh on 23 January, 2023. We pray the ALMIGHTY to give all the mental strength to Mrs. Kirti Singh, his sons and grand-children to bear the

D.J. Bagyaraj) Vice-President

great loss.

Course based Under Graduates Research Experience- A Way to Kindle Innovativeness and Discovery

The discussion with farm graduates reflects that more than 90 per cent of the scholars are not interested towards higher education in Agriculture. Most of them are willing to prepare for UPSC, Agricultural Officers and Bank examination. Hence, the farm graduates has to be motivated to do research as a component in the curriculum. In recent past, translation of education technology towards course-based undergraduate research experiences (CUREs) have opened new vistas to innovate and invigorate. As in earlier KURUKULAM type of education, CURE facilitated to replace "cookbook" based style of teaching methodology as an attractive alternative in science, technology, engineering and mathematics (STEM). CUREs open a pathway and enable the scholars to travel and think on their own, make them to actively participate in the scientific process, aid in experiencing discovery, encourage to involve in broadly relevant work, aid to find a research collaborator, practice collaboration, and build on their growing knowledge and experience via recapitulation.

Thus, a provision in the curriculum to amalgamate research as a component among the UG scholars will draw their attention to lay a foundation towards novel discovery. This opens an opportunity to integrate researchable issues into the classroom. For *e.g.*, Rural Agricultural Work Experience (RAWE) supplements the cookbook knowledge with reality under field conditions, by having a direct interaction with farmers, SHG, industrialists, NGOs, FPOs, and extension functionaries.

Likewise, attachment of UG students during their study period in Agro based industries, and in reputed institution across the country working on Genomics, Proteomics, Metabolomics, Host Pathogen interaction, Microbial bio pesticides, Microbial inoculants for Growth Promotion, Pesticide residue analysis, biotechnology and use of unmanned vehicles would definitely inculcate educational benefits of research experiences. It kindles scientific self-efficacy, critical thinking, increased interest in science careers, and higher graduation and retention rates. This would aid the student community to invest their time and energy into research and to develop novel products for the betterment of mankind in the form of new startups.

Hence, motivating the students to do research at under graduate level in various disciplines of their interest would provide an excellent opportunity by providing ample opportunities for discovery-based research.

(S. Nakkeeran) Editor, NABS NL





Left to Right: Dr. R. S. Paroda (for 2012) and Dr. R.R. Hanchinal (for 2016) received "Prof. S. Kannaiyan Memorial Award" from Dr. Kirti Singh

NABS DEEPLY MOURNS THE DEMISE OF NONI RATNA PROF. DR. KIRTI SINGH WHO PASSED AWAY ON 23 JANURY 2023 AT JAUNPUR



Dr. Kirti Singh, an eminent vegetable scientist of international repute and a great human who emulated the couplet of Thirukkural தோன்றின் புகழொடு தோன்றுக அ.்.திலார் தோன்றலின் தோன்றாமை நன்று (குறள்: 236)

If one born at all he should be born to glory; Otherwise, it were better that he were not born [Kural-236]

departed from us to Eternal Peace on 23 January, 2023.

Dr. Kirti Singh always whole heartedly guide and patronage the activities of NABS. The Fifth Interactive Workshop (2012) with the theme, "Prospects of Medicinal Plants in Promoting Wellness", organized by NABS in collaboration with World Noni Research Foundation, Chennai for two days from 14 to 15 May, 2012 at University of Madras, Guindy Campus, Chennai is the first one after the demise of the Founder President of NABS, Prof. Dr. S. Kannaiyan in which Dr. Kirti Singh, Chairperson, World

Noni Research Foundation (WNRF), Chennai and President, International Society for Noni Science (ISNS) graced the occasion as the Chief Guest and conferred the prestigious award of NABS, "Prof. S. Kannaiyan Memorial Award" for 2012, on Padma Bhushan Dr. R. S. Paroda, the first eminent scientist to receive this award ever since it was instituted.

Dr. Kirti Singh released the abstract book of the conference and NABS-News Letter.

Dr. Kirti Singh received Prof. S. Kannaiyan Memorial Award for 2013 during the inaugural function of the Sixth Interactive Workshop which was the First NABS-National level Seminar with the theme, "Microbes and Human Welfare", organized in collaboration with Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamil Nadu from 20 to 21 July, 2013. Dr. K. Muthuchelian, Vice Chancellor, Periyar University, Salem, Tami Nadu conferred the award on Dr. Kirti Singh during the inaugural function.

Dr. Kirti Singh delivered Prof. Kannaiyan Memorial Oration on, "Noni (Morinda citrifolia L.) - A Treasure for Wellness".

Dr. Kirti Singh is also the recipient of Dr. APJ Abdul Kalam Memorial NABS-Life Time Achievement Award for 2019.

Dr. Kirti Singh is a guiding spirit for National Academy of Biological Sciences. He served as Chairman, on several occasions, for the selection committee constituted to select eminent scientists for the two coveted awards of NABS- viz., Prof. S. Kannaiyan Memorial Award and Dr. APJ Abdul Kalam Memorial NABS-Life Time Achievement Award.

Dr. Kirti Singh was always very compassionate with fellow workers and he was a true leader.

உரன்என்னும் தோட்டியான் ஒரைந்தும் காப்பான் வரன்என்னும் வைப்பிற்கோர் வித்து (குறள்: 24)

The one who has the strength to control his five senses, Prepares the way for a higher place in life (Kural: 24)

The President, Vice Presidents, Secretary, Treasurer and Editor, Executive Council Members, Life Members, Provisional Life Members, Corporate Life Members and Corporate Fellows of NABS deeply mourn the demise of Dr. Kirti Singh.

The members of NABS deeply mourn the demise of Prof. Dr. Kirti Singh during the Annual General Body Meeting of NABS held on 25 January, 2023 at Periyar University, Salem, Tamil Nadu.







Enroll yourself as a member and be a part of NABS

Types of Membership available (one time payment)

A. Life Member : ₹ 5,000/- or US\$ 200/-

b. Provisional Life Membership : ₹ 5,000/- or US\$ 200/-

c. Corporate Life Member : ₹ 10,000/- or US\$ 400/-

D. Corporate Fellow : ₹ 1,00,000/- or US\$ 4000/-

- Duly filled membership form shall be sent as Secretary NABS in WORD format by E-mail to secretarynabs@gmail.com
- The prescribed membership fee shall be transferred on line

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Thiruvanmiyur, Chennai - 600 041

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The authors are responsible for the information related to Research notes and short communications of this issue

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Secretary, NABS

NABS-Secretariat, Room No. 209, Second Floor, CAS in Botany, University of Madras, Guindy Campus, Chennai - 600 025, On behalf of National Academy of Biological Sciences

An appeal to members of NABS

Kindly inform change of address including phone numbers and E-mail to the Secretary, NABS by E-mail (secretarynabs@gmail.com)

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