

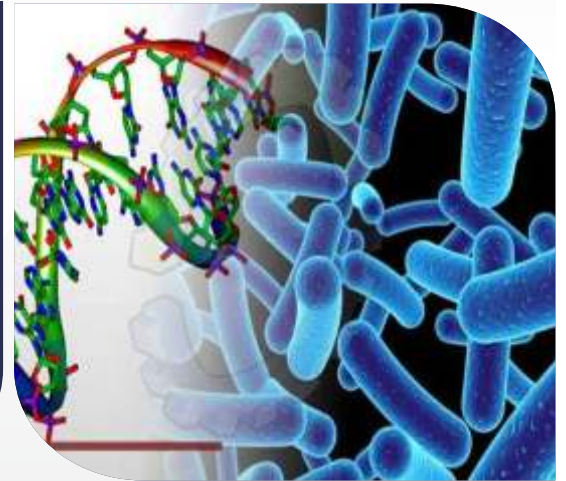


13<sup>th</sup> NABS - National Conference  
on



**CURRENT PERSPECTIVES FOR  
SUSTAINABLE DEVELOPMENT IN LIFE SCIENCES,  
ENVIRONMENT AND AGRICULTURE**

**JANUARY  
23 to 25  
2023**



*Organized by*

**Periyar University**

NAAC A<sup>++</sup> Grade with CGPA 3.61 (Cycle - 3)  
State University - NIRF Rank 63 - ARIIA Rank 10  
Salem - 636011, Tamil Nadu, India.  
Website: <https://www.periyaruniversity.ac.in>  
Email: [nabs2023@gmail.com](mailto:nabs2023@gmail.com)

&

**National Academy of Biological Sciences (NABS)**

Chennai - 600 025, Tamil Nadu, India  
Website: <https://www.nabsindia.org>  
Email: [secretarynabs@gmail.com](mailto:secretarynabs@gmail.com)

## Periyar University

Periyar University was established at Salem on 17<sup>th</sup> September, 1997 by the Government of Tamil Nadu. The University has taken rapid strides and is emerging as one of the leading Universities. The University is named after the Great Social Reformer E.V. Ramasamy, affectionately called as “Thanthai Periyar”. The University aims at developing knowledge in various fields to realize the maxim inscribed in the logo “Arival Vilayum Ulagu” (Wisdom Maketh the World). “Holistic development of the students” is the primary objective of the University. The vision of the University is to impart knowledge to the society through formal and informal modes and contributing to nation building. The University was reaccredited by the NAAC with A<sup>++</sup> Grade and secured 63<sup>rd</sup> rank in NIRF and 10<sup>th</sup> rank in ARIIA among Indian Universities. The University has 27 departments and 113 affiliated colleges. The University is playing a paramount role in bringing multifaceted development of the country. It is consistently organizing innumerable academic activities to bring academicians and industrialists under one umbrella to discuss, deliberate, and carve out time-demanding solutions to social problems.

## National Academy of Biological Sciences (NABS)

National Academy of Biological Sciences (NABS) was founded on 31<sup>st</sup> December, 2004 by (Late) Prof. Dr. S. Kannaiyan, the then Chairman, National Biodiversity Authority, Ministry of Environment and Forests, Government of India, Chennai, Tamil Nadu with a vision to provide a common platform for the biologists to interact with each other for mutual benefit and to further the knowledge on areas of biological sciences. The Academy was registered as "National Academy of Biological Sciences" under the Tamil Nadu Societies Registration Act 1975 (TN Act 27 of 1975) on 10<sup>th</sup> March, 2005 at Chennai South, Saidapet, Chennai – 600 015 with Certificate of Registration No. 110 / 2005.

## Membership of Academy

Any scientist with Ph. D. in Biological Sciences (subjects as recognized by NABS) is eligible to become a member of NABS family by paying the prescribed fee online and become a NABS-ian. Students of Biological Sciences pursuing Ph. D. are also eligible to enrol as a Provisional Life Member of NABS.

## Opportunities available for NABS-ians!!!

NABS offers Fellowship, Associate Fellowship and various other Awards purely on merit basis- following the Score Card System.

### I. Fellowships and Awards

#### General Criteria

- A life member who has completed SIX months of cooling period from the date of enrolment as a life member as on 1<sup>st</sup> December of election year are eligible to apply for Fellowship /Awards.
- A life member can apply for only one award in a year; but a member can apply for Fellowship and various awards.
- Provisional life members are eligible to apply only for NABS-Best Research Paper Award.
- No cooling period is fixed for the NABS-Best Research Paper Award.

S.No.	Name of Fellowship / Awards*	Age limit	Validity of application
1.	Fellowship - Since 2015	Should have completed 30 years	N+2 years
2.	Associate Fellowship - Since 2009	Should have completed 30 years and should not be above 40 years	N+2 years
3.	NABS - Best Woman Scientist Awards - Since 2010	Should have completed 30 years	N+2 years
i.	Agricultural Sciences & Forestry	Dr. E. K. Janaki Ammal Memorial - NABS Best Woman Scientist Award	
ii.	Basic Sciences	Dr. Kamala Sohane Memorial - NABS Best Woman Scientist Award	
iii.	Veterinary and Fishery Sciences	Dr. Sakkubhai Ramachandran Memorial - NABS Best Woman Scientist Award	
iv.	Food and Nutrition	Dr. Asima Chatterjee Memorial - NABS Best Woman Scientist Award	

4.	NABS - Best Research Paper Awards - Since 2012	Not above 40 years	N+2 years Validity becomes null and void if the age limit exceeds
i.	Agricultural Sciences & Forestry	Prof. G. Rangaswami Memorial – NABS Best Research Paper Award	
ii.	Basic Sciences	Prof. T. S. Sadasivan Memorial - NABS Best Research Paper Award	
iii.	Veterinary and Fishery Sciences	Dr. C. M. Singh Memorial – NABS Best Research Paper Award	
iv.	Food and Nutrition	Dr. V. Subrahmanyam Memorial – NABS Best Research Paper Award	
5.	Dr. G. N. Ramachandran Memorial NABS-Young Scientist Award –Since 2013	Not above 35 years	N+2 years
6.	Prof. M. S. Swaminathan NABS-Leadership Award - Since 2014	Should have completed 50 years	Valid only for the year of application
7.	NABS - Best Scientist Awards - Since 2014	Should have completed 30 years	N+2 years
i.	Agricultural Sciences & Forestry	Dr. B.P. Pal Memorial - NABS Best Scientist Award	
ii.	Basic Sciences	Dr. G. S. Venkataraman Memorial - NABS Best Scientist Award	
iii.	Veterinary and Fishery Sciences	Dr. V. S. Alwar Memorial - NABS Best Scientist Award	
iv.	Food and Nutrition	Dr. Smt. Rajammal P. Devadas Memorial - NABS Best Scientist Award	

## ii. Student Awards

M.Sc. & Ph. D. student can participate in Student Award competition during NABS-National Conferences organized every year and receive the following awards including cash prizes. \*(For more details visit [www.nabsindia.org](http://www.nabsindia.org))

Name of Award	Mode of selection
Carl Linnaeus Award [For Ph.D. students]	Based on Best presentation made during NABS-National Conference
Prof. M. S. Swaminathan Award [For M.Sc. students]	

### Preamble

The awards are instituted by NABS to bring out the ability to choose a hypothesis / problem, planning and execution of research programme and presentation skill of the students engaged in higher studies (M.Sc. & Ph.D.). Based on this, the following guidelines are set to the student participants in the said competition:

1. National Academy of Biological Sciences will hold the competition for Ph.D. and M. Sc. students of Biology (subjects as recognized by the Academy) in a separate session during the Conference.
2. At least a minimum quorum of three selected presenters shall be available for competition; least the competition shall be cancelled.
3. The award will carry a certificate and cash (Rs.5000/- for Ph.D. and Rs.4000/- for M.Sc.)
4. The student shall be the senior author of the paper. The original paper must follow the typical research paper format [Title, author(s), affiliation, introduction, material & methods, results, discussion, conclusion, acknowledgement, reference] and shall not exceed 5000 words. Neatly typed manuscript in 1.5 space using 11 points of Times New Roman in A4 size is accepted.
5. Each student shall submit only one paper for the award.
6. The paper must pass through Turnitin Similarity Cut-off Score (Similarity shall not exceed 20%).
7. The paper shall be from his/her thesis within one year from the date of submission of thesis and should not have been presented elsewhere. However, the papers published from the thesis work as a mandatory publication for the award of Ph.D. degree could also be sent for the award. A certificate to this effect shall be given by the student which shall be endorsed by his/her guide and HoD.
8. The short-listed papers for the award presentation shall be informed to the student concerned for presentation during the Conference.

9. The abstracts of the award winning paper including the short-listed papers for presentation will be published in the NABS Newsletter.
10. Non-refundable processing fee of Rs. 1000/- for Ph.D. or Rs. 500/- for M.Sc. student shall be paid along with the full paper submitted for the award.
11. Presentation will be judged by a panel of judges and their verdict will be the final and binding on all aspects.

### **iii. NABS-National Conferences**

Every year, theme-based NABS-National level Conference is organized in collaboration with educational institutions or research organizations. NABS-ians may contribute papers. The best oral / poster presentations are awarded.

### **iv. Prof. S. Kannaiyan Memorial NABS-Lecture Workshop - How as a NABS-ian can benefit?**

To reach the unreached, “Prof. S. Kannaiyan Memorial NABS-Lecture Workshop” is organized in colleges housed in remote places / or away from main cities. The proposal is being implemented from 2018 onwards. For more details, please visit the website [www.nabsindia.org](http://www.nabsindia.org). NABS provides funding to organize the Workshop.

### **How to apply for Fellowship or Award?**

In general, applications are received from members of NABS from 1<sup>st</sup> to 31<sup>st</sup> December of the election year for Fellowship and Awards which will be scrutinized by a Technical Review Committee (TRC) constituted by the President. However, Prof. S. Kannaiyan Memorial Award and Dr. APJ Abdul Kalam Memorial NABS-Life Time Achievement Award are awarded by nomination as per the rules laid out.

### **About the Conference**

Agriculture provides the largest share of food supplies and ensures a critical number of ecosystem services. The world population is increasing at an unprecedented rate and is projected to reach 9.7 billion in 2050. To feed this growing population, food production needs to increase by 70 % with the existing cultivable land and under increasingly harsh climate conditions without further damaging the environment. In addition, intensive conventional agricultural practices have had negative impact on environmental sustainability, food quality and aggravated the structural decline in farm productivity. Many government agencies and policies have suggested that combined attempts of increasing soil biological health and plant breeding program can achieve ~50 % increase in farm productivity without further increase in inputs. According to CoP 14 UNCCD, India’s target for Land Degradation Neutrality (LDN) or restoration of degraded land was 30 million hectares (Mha) by 2030.

The efficient use of natural resources for human needs is important to protect those resources for the future to maintain a balance in the environment. For environmentally sustainable development to occur, it is essential to preserve the environment for current and future generations to enjoy a potentially average quality of living. Hence, several measures have been advocated by the UN to achieve this goal by 2030 such as promoting sustainable agricultural practices to obtain better crops that involve cover crops, crop rotation, permaculture, soil enrichment, natural pest predators, bio-intensive integrated pest management, polyculture farming, etc. In addition, greenhouse gases in the atmosphere have promoted global warming that may interfere with sustainable development in agriculture. The changes in climate can be mitigated by several measures such as conservation of forests, improving biodiversity, and finding alternative sources of energy.

Sustenance of life on Earth is based on development in agriculture and healthy environment through sufficient food availability, clean atmosphere, and prevention of diseases. New frontiers in science such as biotechnology, nanotechnology, and molecular biology have enabled not only humans but also other animals and plants to combat the changes in environment through advancements in biochemical and pharmaceutical sectors. Quality of life for all living beings is dependent upon research progress in the above-mentioned fields of science.

In order to integrate all three disciplines such as life science, environmental science, and agriculture science towards true sustainable development, the current Conference strives to bring diverse scholars together on a

single platform for exchange of research ideas and promote further research in these areas. Among the 17 SDGs implemented on 2016, most of the SDGs are directly related to our proposed Conference Themes such as Zero Hunger (SDG 2), Climate Action (SDG 13), Life below Water (SDG 14) and Life on Land (SDG 15) focusing on environmental, economic, and social sustainability. Hence, the purpose of the 13<sup>th</sup> NABS Conference on "Current Perspectives for Sustainable Development in Life Sciences, Environment and Agriculture" will attempt to provide solutions for various issues and pave the way for sustainable utilization of our natural resources to ensure food, water and energy security for every citizen in the world.

### Conference Sub-Themes

- Agriculture and Ecosystem
- Biochemical and Pharmaceutical Applications
- Biodiversity Conservation and Climate Change
- Biotechnology and Genetic Engineering
- Energy and Environment
- Nanotechnology and its advancements
- Plant, Animal and Microbial Research

### About Salem

Salem city is the capital of Salem District in the state of Tamil Nadu located in southern part of India. Salem is well connected by rail and road networks. Salem is the fourth largest city in Tamil Nadu by population. Salem is also known for mangoes and steel. Salem is a major hub of minerals and mining industries, sago factories and textiles units. There are several attraction in the vicinity of city including the hill stations Yercaud – is also called as Jewel of the South and Kolli hills – popularly known for its medicinal herbs. These hill stations are located in the Eastern Ghats with a salubrious climate throughout the year.

Nearest Airport : Coimbatore, Bangalore and Trichy

Nearest Railway Station : Salem Junction

### Participation and Conference Fee

The duly-filled registration form may be sent along with the participation fee (including 18% GST) by non-refundable Demand Draft (DD) in favour of “**Treasurer NABS 2023**”, Periyar University payable at Salem, Tamil Nadu or Direct Bank Transfer/NEFT/RTGS to **Treasurer NABS 2023**, Periyar University, A/c No. 110081791870, IFSC Code: CNRB0008450, CANARA BANK. Kindly send the soft copy of your online fees receipt to the email (**treasurernabs2023@gmail.com**) to confirm your registration. Participation fee includes registration, conference materials, working lunch and refreshments.

Participants	Periyar University Departments (INR)	Others (INR)
Industries & Public sectors/ Sponsors	---	*Platinum: 15,000/- *Gold: 10,000/- *Silver: 5,000/- Exhibition Stalls: 10,000/-
Faculties, Scientists & Delegates	1000/-	2000/-
Research scholars	750/-	1500/-
UG & PG Students	500/-	750/-

\*For participation (2 persons) and advertisement in Conference Proceedings

### Scan for Registration



**Registration Link :** <https://forms.gle/oUD5nADK31AzkJeT9>

## Deadlines

Registration : 06-01-2023

Submission of Abstract : 03-01-2023

Intimation of Acceptance : 06-01-2023

## Communication

All communications with reference to the Conference and submission of papers shall be addressed to the Organizing Secretary	<b>Dr. P.M. Ayyasamy</b> Associate Professor Department of Microbiology Periyar University, Salem - 636011 Mobile: +91 9486327103 E-mail: nabs2023@gmail.com
Communication pertaining to Students Award competition papers (Carl Linnaeus Award & Prof. M. S. Swaminathan Award)	<b>Prof. T. Marimuthu</b> Secretary, NABS E-mail: secretarynabs@gmail.com Mobile: 94436 73155

## Abstract Submission

An abstract in MS word, Times New Roman (font size 12, line space 1.5) highlighting the results of the work not exceeding 250 words should be in the following format: Title (Running letter and bold with font size 14), Authors name (Running letter, Bold with font size 12), and Affiliation (Address of the institution with e-mail ID of corresponding author). Presenting author should be indicated with an underline. Title, author's name and affiliation should be centre aligned. Key words (font size 12) should not be more than 5.

The abstract should be submitted via e-mail to **nabs2023@gmail.com** on or before **03<sup>rd</sup> January 2023**.

## Oral/Poster Presentation

- Authors are requested to indicate their choice for oral/poster presentation. The scientific committee will decide on the suitability of paper for oral or poster presentation.
- The poster should clearly present the title, the author (s) name (s), affiliation (s) and address.
- The size of the poster should be with a dimension of 1m (height) x 1m (width). The content of the poster should be easily readable from a distance of 2-3 meters. Poster should be in one piece either in flex or laminated sheet.
- Oral presentation for every individual paper will be given 10 minutes.
- Best Presentation Awards will be given to meritorious oral and poster presentations.

## Accommodation & Travel

- The hotels are in the city which is 7 Km away from the University but close to the New Bus Stand, Railway Station and Shopping Centres.
- The participants are requested to make their own travel arrangements.

<https://www.makemytrip.com/hotels/salem-hotels.html>

[https://www.tripadvisor.in/Hotels-g1162345-Salem\\_Salem\\_District\\_Tamil\\_Nadu-Hotels.html](https://www.tripadvisor.in/Hotels-g1162345-Salem_Salem_District_Tamil_Nadu-Hotels.html)

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- Dr. M. Radhakrishnan**, Centre for Drug Discovery and Development, Sathyabama University, Chennai, Tamil Nadu.
- Dr. Sabayasachi Dasgupta**, Department of Ecology and Biodiversity, Tripura University, Tripura.

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Registration Form

13<sup>th</sup> NABS-National Conference

on

**Current Perspectives for Sustainable Development in Life Sciences,  
Environment and Agriculture**

January 23 to 25, 2023

*I am interested to present a paper / participate in the 13<sup>th</sup> NABS-National Conference.*

Name : .....

Designation : .....

Organization : .....

Full Postal Address with PIN : .....

.....

.....

Mobile Number : .....

E-mail ID : .....

I intend to attend / submit oral paper / poster entitled:

.....

.....

I have transferred the Conference Registration Fee online (Rs. ) (evidence attached)

The soft copy of the transaction details send to **nabs2023@gmail.com** & **treasurernabs2023@gmail.com**

Details for online transfer [Name of Account Holder: Treasurer NABS 2023 A/c No. 110081791870, IFSC Code: CNRB0008450, CANARA BANK].

Place :

Date :

Signature :

Scan for Registration



Registration Link : <https://forms.gle/oUD5nADK31AzkJeT9>