

PRAYOGAVANI

Quarterly Newsletter

The first few months of 2024 has been eventful, to say the least! Prayoga has been buzzing with activities on all fronts, back-to-back events have kept the teams at Prayoga busy. We've grown by leaps and bounds, both as a family and in terms of our research and social impact capabilities. This newsletter will take you through the eventful months on the campus and beyond!

Our Kriya teachers participated in the January TEP Workshop with enthusiasm. The much anticipated inauguration of the new research facilities was conducted in February. Another milestone in February was the inauguration of the Sustainability Garage, which was followed by workshops in February and March.

We look back at these months with pride and look forward to the upcoming months with enthusiasm.

Warmly,
Team PrayogaVani



➤➤➤ Inauguration of Prof. U R Rao Research Block



The inauguration of the Prof. U R Rao Research Block was a momentous day for the Prayoga family. It was emblematic of the strides we have made and the pioneering work that we will undertake.

The facilities inaugurated included laboratories for life sciences, physical sciences, chemical sciences, earth sciences, and sophisticated instrumentation to engage in multidisciplinary scientific research.

These new facilities are primed to accelerate our research efforts that will have substantial social impact and viable practical applications in commercial and industrial sectors.

The new research block was made possible due to the immense support received from Zerodha for the cause of nation-building through Scientific Research. The Prof. U R Rao Research Block was inaugurated by Zerodha CTO, Dr. Kailash Nadh. Five research laboratories were inaugurated during the ceremony by Prof. Balaram,, Prof. Guru Row, Dr. P R Krishnaswamy, Dr. H S Nagaraja, and Dr. M N Venkatachaliah, former Chief Justice of India.



"Our decision to back the institution was instant and unanimous. This one-of-a-kind institution raises creativity in science... The institution's positive influence will reverberate in society for many years to come."

Dr. Kailash Nadh, Zerodha CTO,

Launch - Sustainability Garage - A Mercedes-Benz Initiative



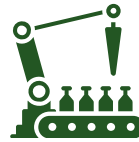
Awareness

Acquaint students with relevant themes and build competencies.



Idea Generation

Apply competencies to develop creative ideas and solutions that address challenges and problems in sustainability.



Incubation

Provide opportunities to implement ideas in real-world scenarios.

This series will empower researchers to prepare proof of concepts that could have commercial/industry applications.

PROGRESSION - SUSTAINABILITY GARAGE INITIATIVE



Our first institutional collaboration this year!

The Sustainability Garage, in collaboration with Mercedes-Benz Research and Development India (MBRDI), is the first step towards building a hub for multidisciplinary research. This space, equipped with state-of-the-art facilities, lays the foundation for creating an ecosystem that nurtures sustainable materials and a circular economy.

The initiative aims to create platforms and research spaces, both in classrooms and beyond, that effect real change for the world.

»»» Launch - Sustainability Garage - A Mercedes-Benz Initiative

The joint vision of MBRDI and Prayoga is to cultivate innovative ideation amongst young student researchers, particularly in projects that have significant social impact and mainstream sustainability research.

At the launch of the Sustainability Garage, the instruments and spaces were inaugurated in the presence of Dr. H S Ngaraja, Chief Mentor of Prayoga, Sri. Manu Saale, Managing Director and CEO of MBRDI, Dr. H S Nagabhushana, Director of Research at Prayoga, and representatives from six universities and colleges in Karnataka.



A series of three workshops were held in February and March 2024. These workshops were designed to provide students with insights into sustainability research and hands-on experience with the new sophisticated instruments. Esteemed professors from IIT Bombay shared their expertise during these events.



Prof. Amith Arora



Prof. Vikram Vishal



Prof. Yogendra Shastri



A team of Prayoga researchers demonstrated the use of equipments and taught students how to handle the instrumentation.

Over 150 students participated in these workshops, all pursuing engineering or basic science courses. Each workshop was attended by students from prominent academic institutions in Karnataka.

This initiative aims to foster collaboration between academia and industry, driving research and innovation in sustainable materials and technologies. A key component was the hands-on experience with sophisticated instruments at the sustainability garage and instrumentation lab.



Students from the J.S.S. Academy of Technical Education in Mysuru, Jain University, School of Engineering and Technology, Nrupathunga University, Vijaya College, St. Joseph's College, and RV College of Engineering participated in the workshops.



Read the blog about the series of workshops here!



35 (I)(ii) Tax Exemption

In February, Prayoga was honored to receive the prestigious 35(I)(ii) tax exemption from the Income Tax Department, Government of India, for our research initiatives. This allows a remarkable 100% deduction on scientific research expenditure, approved by the DSIR under the Department of Space and Technology.

The 35(I)(ii) exemption not only benefits our organization but also provides a significant incentive for donors to contribute to our cause. This will ensure that funds received for our research programs and initiatives reach those who need it most.

With this exemption, we can continue to expand our reach, implement innovative projects, and make a lasting difference in the lives of individuals and communities.

February Open House



It was a privilege to host Prayoga's very first Open House for chartered accountants! The first in a series of such interactive sessions for professionals across domains, this session was intended to acquaint the gathering with Prayoga's programs, vision, and sponsorship possibilities.



A group of seasoned chartered accountants explored science through guided experiments and re-discovered their childlike sense of inquisitiveness. This environment set the stage to introduce Prayoga's ongoing social impact programs to its wellwishers.

Research Publications <<<



**Dr. Subhadip
Senapati**
Senior Researcher,
Chemistry

Aggregation of rhodopsin mutants in mouse models of autosomal dominant retinitis pigmentosa

Journal - Nature Communications

DOI: <https://www.nature.com/articles/s41467-024-45748-4>

In this work, aggregation of rhodopsin mutants in two mouse models (P23H and G188R) leading to autosomal dominant retinitis pigmentosa (adRP) was studied. Atomic force microscopy (AFM) was employed to assess the effects of these mutations on rod outer segment disc membrane structures and rhodopsin organization.

Influence of Iron Nanoparticle and Multifaceted Endophytic Fungus *Piriformospora indica* on *Zea mays* L.: A Novel Approach toward Innovative Yet Sustainable Farming

Journal - Geomicrobiology

DOI: <https://doi.org/10.1080/01490451.2024.232419>

*"This article was a team effort involving myself, Dr. Minchita, and Dr. Swetha from CIIRC. We studied how combining iron nanoparticles (Fe-CNTs) with the fungus *Piriformospora indica* affects maize crops, and we got some really good results."*



**Dr. Venkata
Krishna Bayineni**
Senior Researcher,
Life Sciences

Workshops



IGCW-STEPS Workshop

January 20th, 2024, Mumbai

Dr. K.S. Nagabhushana, Director - Research, Prayoga, was honored with a thicket of 5 trees at the Trees for Tigers, Simlipal National Park, Odisha for his contributions towards “Green and Sustainable Chemistry “ endeavours. The honor was conferred as part of the Green Chemistry Foundation.

Student Researchers

Why Is the Baby Sunbathing? An Overview of Jaundice

Frontiers for Young Minds (FYM)

DOI:

<https://kids.frontiersin.org/articles/10.3389/frym.2023.1208907>

Two of our Samvida students, Shrirama and Mukunda, recently acted as reviewers for the 'Frontiers for Young Minds (FYM)' International Journal by Frontiers Publishing Group in Switzerland. This journal, tailored for young researchers, allows school students to review articles by established researchers and professors. Shrirama and Mukunda reviewed a research paper by Nico Osier and the group from the Department of Neurology at the University of Texas, Austin.



Shrirama & Mukunda
Samvida

Poster Presentation <<<

Fabrication of WO₃ - Biomaterial Nanocomposite for Effective Memristor Device

Prayoga Researchers Ms. N Swetha, Mr. Adarsh, Dr. Ramya Prabhu and Dr. Omprakash won the BEST POSTER Award for their work on nanomaterials at Rasayan'18, an Royal Society Chemistry co-organized event at Christ (Deemed to be University), Bengaluru on 29-30 January 2024.



Ms. Swetha
Research Associate
Chemistry



Mr. Adarsh V N
Research Associate
Physics



Dr. Ramya Prabhu B
Researcher
Chemistry



Dr. Omprakash S S
Researcher
Physics



This entire research work was carried out at Prayoga. From conceptualization to execution, the journey has been both challenging and rewarding, reinforcing our commitment to advancing scientific understanding and contributing to positive societal impact!



Poster Presentation

Exploring Gas Laws Through Experiential Learning: Integrating Johnstone's Triangle



Dr. Athavan Alias Anand
Senior Researcher, Chemistry

Prayoga researcher Dr. Athavan Alias Anand's recent research poster won the best poster award in the "Education - Primary/Secondary" category!

The Royal Society of Chemistry (RSC), UK hosted an international virtual conference on LinkedIn from midday on March 5th to midday on March 6th, 2024. This poster showcased work conducted with Grade 8 students in an alternative school setting, where they were taught gas laws experientially, aligned with Johnstone's triangle principles.

Each poster in the conference underwent scrutiny by different Subject Chairs of the RSC team, who posed questions in the comment section of the LinkedIn page. Authors were required to respond not only to the RSC team but also to queries from fellow researchers who viewed the posters.

Research Collaborations



Shilps Sciences

We are excited to announce our Research Collaboration with Shilps Sciences!

Shilps Sciences and Prayoga signed an MoU on 19.03.2024 to further research collaborations in nanotechnology & life sciences. Our collaboration with Shilps Sciences opens up a world of possibilities in research!



L-R: Dr. K. S. Nagabhushana, Dr. Subhadip Senapati, Dr. H. S. Nagaraja, Dr. Ashwin Lal, Shri. Vallish Herur, Dr. Shomnath Bhowmick

Teacher Empowerment Program Workshop



10, 11, 12 - January 2024

78

Participants

20

Facilitators

8

Sessions

Being a teacher is just not about classroom teaching through chalk and talk, but beyond. The entire personality of the teacher is a lesson in itself. Prayoga intends to make teachers the facilitators of learning, where every child learns with the presence of one such confident facilitator.

Many teachers requested that Prayoga be associated with them throughout and not just for the 5-year duration of the program. This stands testimony to the kind of impact that Prayoga has and is having on schools, teachers, children, and education.

TEP is a platform for teachers designed by immensely passionate educationists and researchers who provide content knowledge along with essential pedagogical skills and strategies.

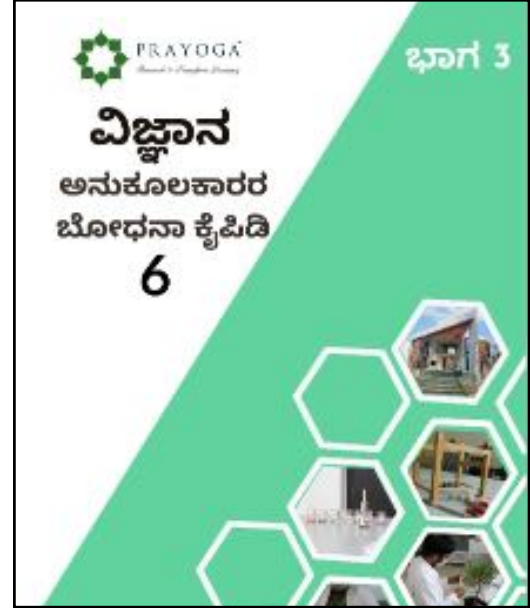


Read the Blog for
TEP 3 here!

»»» Kriya News

This quarter, courseware for SETs 3 and 6 were distributed to the students and facilitators in January. 3740 student copies and 93 facilitator copies were provided to grades 6 and 7 students.

Our Lab Stations are being utilized in all of the Kriya school, facilitating the experiential learning of science in every Kriya session. We are happy to receive support for the Kriya initiative from education functionaries, SDMC members, MLAs, grama panchayats, schools, and parents.



Press coverage of Kriya's efforts can be found here.



Ms. Pragnya and Ms. Sowparnika, our Academic Coordinators, were invited to represent Prayoga in a teacher's consultation meeting at GHPS Kodange, Dakshina Kannada on January 21st, 2024.

On the 24th of February 2024, they facilitated a workshop for teachers at K P S Montepadavu, Dakshina Kannada.

We are delighted to see Prayoga's team being recognized as valuable resources for science education, indicating an increasing regional presence.

National Science Day 2024 <<<

National Science Day is celebrated across India to mark the discovery of the Raman Effect by Sir C.V. Raman in 1928. It is a day to promote scientific temper and inspire young minds towards the field of science.

To celebrate National Science Day this year, the Prayoga team participated in and organized Science Day exhibitions across Partner Schools during the week and on National Science Day.

At the Prayoga campus too, a program was organized for Kriya students in the afternoon of the 28th! National Science Day was filled with activities for the Prayoga family.



>>> Anveshana 2024



The year began with the calls to apply for Anveshana 2024. Eight projects across all areas of thematic research were lined up. A total of 108 applicants to the Anveshana program were received in full.

In the last week of March, interviews were held on campus and online to shortlist all the candidates. We are happy to share that 35 candidates were selected for Anveshana 2024. Coursework for these research projects will begin in the first week of April.

Gallery



Mr. Anucheth
Additional Commissioner of Police



Mr. K L Kodandapani
Massachusetts, USA



Dr. Ashwin Lal, Dr. Shomnath
Bhowmick, Shilps Foundation



Mr. Kush Desai
Former MD. SAP Labs India Pvt Ltd



Mr. Krishnan Sadagopan (Senior VP, Ashok
Leyland), Mr. Venkatesh Jayaram (IronCloud),
and Mr. Ravi Shankar T (Bosch).



Prof. T G Sitaram,
Chairman, AICTE

Women's Day Celebrations



"All of you are the daughters of Prayoga. I express my heartfelt appreciation to each of you, our valued team members! I wish you many successes ahead!"

Dr. H S Nagaraja
Chief Mentor, Prayoga



ಆಕಾಶದ ನೀಲಿಯಲ್ಲಿ,
ಚಂದ್ರ ತಾರೆ ತೊಟ್ಟಿಲಲ್ಲಿ
ಬೆಳಕನಿಟ್ಟು ತೂಗಿದಾಕೆ ನಿನಗೆ,
ಬೇರೆ ಹೆಸರು ಬೇಕೇ
ಸ್ತ್ರೀ ಎಂದರೆ ಅಷ್ಟೇ ಸಾಕೆ ?

This year, International Women's Day (March 8th 2024), witnessed a celebration put together by Prayoga's team of men! This team arranged a program celebrating the hard work and dedication of our female colleagues.

It was a vibrant tribute to the remarkable women who contribute to our organization's success. The day was filled with laughter, camaraderie, and appreciation.

»»» New Members



Ms. Padmaja joined our team as the Academic Coordinator for Raichur district. She holds B.Sc and B.Ed degrees.

Ms. Padmaja Patil



Mr. Eranna joined our team as the Academic Coordinator for Yadagiri and Kalaburagi, with over 15 years of work experience.

Mr. Eranna Banagar



Mr. Sunil joined our team as the Academic Coordinator for Chitradurga district. He holds M.Sc and B.Ed degrees.

Mr. Sunil P



Ms. Pooja joined our team as the Academic Coordinator for Tumkur district. She holds M.Sc and B.Ed degrees.

Ms. Pooja V



Ms. Chaitra joined our team as the Academic Coordinator for Kumta. She holds an M.Sc degree.

Ms. Chaitra Narayan Hegde



Mr. Santosha joined our team as the Academic Coordinator for Hassan, with over 7 years of work experience.

Mr. Santosha D V



Ms. Sanmathi joined our team as the Academic Coordinator for Belgaum. She holds a B.Sc degree.

Ms. Sanmathi D T



Mr. Sachin joined our team as the Academic Coordinator for Chikkodi. He holds a B.Sc. degree.

Mr. Sachin Pantoji

➤➤➤ New Members



Mr. Srinivasa joined our team as the Academic Coordinator for Kodagu. He holds an M.Sc degree with 6 years of experience.

Mr. Srinivasa P N



Ms. Pooja joined our team as the Academic Coordinator for Bidar. She holds M.Sc and B.Ed degrees.

Ms. Pooja S Goled



Mr. Arjun joined our team as the Senior Faculty - Student & Teacher Education, with over 14 years of work experience.

Mr. Arjun V

We extend a warm welcome to the new members of the Prayoga family.

As our family grows, we are confident that our impact will be felt in all the spaces we expand into. Our team continues to contribute to Prayoga's ongoing efforts in science education research.

Prayoga has a vision to transform society by enhancing the utility and quality of learning through research. Prayoga is a unique not-for-profit organization poised to evolve into a Globally Unique Trans-disciplinary Education Research Institution.

Prayoga's domain research in the thematic areas of Wellness, Green Chemistry, Advanced and Functional Materials, Food and Agriculture, and Earth Sciences has resulted in this institution being recognised by the DSIR, Govt of India, as a Science and Industrial Research Organisation in 2023. In 2024, the IT Department awarded Prayoga a 100% tax exemption for donations under section 35(l)(ii), for research purposes.

At Prayoga, a team of Education and Scientific Researchers, Mathematics specialists, Data Science experts, Program Management professionals, and field teams collaborate to find innovative solutions that address the challenges faced by the Indian education system. It is a unique not-for-profit organization poised to evolve into a Globally Unique Trans-disciplinary Education Research Institution.

Partner with Prayoga

Social Impact Programs

Transform schools, empower teachers, and enrich students across the country, especially those lacking access to learning resources in rural areas of socio-economically disadvantaged communities.

Research Activities

Domain Research with significant real-world impact and Education Research to engender a paradigm shift in education, taking society towards a sustainable future.

Infrastructure @ Prayoga

The vibrant campus serves as the hub for research and education, sustaining programs and initiatives to serve the nation's needs for decades to come.

Your invaluable support will empower us to expand our reach, innovate, and bring about positive, lasting change in the lives of countless young minds.



www.prayoga.org.in