

3.6.3 - Number of extension and outreach programmes conducted by the institution organized in collaboration with Industry, Community and NGOs During the year 2021-22

Department of Environmental Science

Half of the year 2021-22 was marked as Covid-19 therefore all the activities was conducted online. During this academic year our Institute of Science College Department of Environmental Science conducted various virtual programs online and some are taken offline as the Covid restrictions were relaxed.

CELEBRATION OF NATIONAL BIRD WEEK



From November 5th to 12th our department with the collaboration of Maharajbagh Zoo, College of Agriculture, Nagpur organized National Bird week program create awareness among the students about importance of birds in nature, endangered species\habitat, migration of birds, security to their habitats, laws concerning protection and conservation of birds. Online webinar was conducted where interesting talks by experts were organized.

CELEBRATION OF INTERNATIONAL DAY OF FOREST



On 21st of March 2021 our department with the collaboration of Maharajbagh Zoo, Nagpur conducted International Day of Forest under the theme “FOREST RESTORATION: A PATH TO RECOVERY AND WELL-BEING” to commemorate the green cover around the world and reiterating its importance. Online webinar was organized by faculty members and various activities also conducted.

CELEBRATION OF WORLD ENVIRONMENT DAY



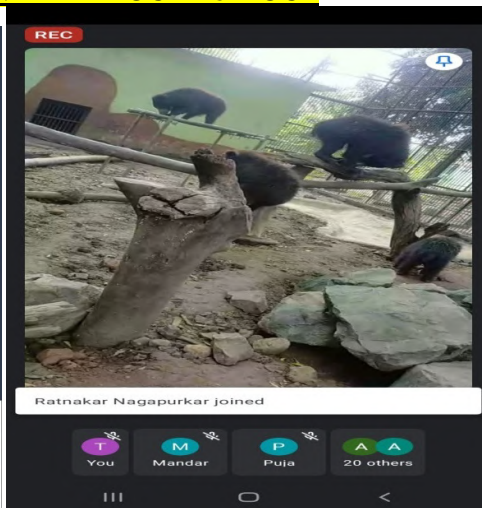
As every year on 5th of June World Environment Day is celebrated all over the world our Department of Environmental Science, Institute of Science, Nagpur in the collaboration of Maharajbagh Zoo, Nagpur has organized a World Environment Day Programme with the theme “ECOSYSTEM RESTORATION” On this occasion Dr. Renuka Badhe Mam, Executive Secretary of European Polar Board, Netherland was invited as a chief guest She has taken an online webinar where she briefed the students on how to REIMAGINE-RECREATE-RESTORE your NEIGHBORHOOD and how we can enhance people’s livelihoods, counteract climate change and stop the collapse of biodiversity.

CELEBRATION OF WILDLIFE WEEK 2ND OCT – 8TH OCT

Wildlife Week Celebration
Maharajbag Zoo, Nagpur
 &
**Department of Environmental Science
 Institute of Science, Nagpur**

Schedule (2nd – 8th October)

Sr. No.	Activity/Event	Date	Time
1)	Inaugural Programme Expert Talk: Ms. Srawani Kawale	2/10/2021 Saturday	1.00-2.00 p.m
2)	Scientific Story Representation by student participants Interactive Session Online Live Visit to Zoo	4/10/2021 Monday	1.00-2.00 p.m
3)	Expert Talk: Dr. Moughare Live Quiz: Google Form Link	5/10/2021 Tuesday	1.00-2.00 p.m
4)	Expert Talk: Smt. Gopal Thosar Interactive Session	6/10/2021 Wednesday	1.00-2.00 p.m
5)	Expert Talk: Smt. Nagarpurkar Photography: Wild species in natural Habitat	7/10/2021 Thursday	1.00-2.00 p.m
6)	Expert Talk: Dr. Anagha Patil Wildlife Short Film Concluding Program	8/10/2021 Friday	1.00-2.00 p.m



National Wildlife Week is annually celebrated across India between 2nd to 8th October with an aim to protect and preserve the flora and fauna of India. And with the same motive our department of Environmental Science with the collaboration of Maharajbagh Zoo, Nagpur conducted wildlife week under the Theme “Forests and Livelihoods: Sustaining People and Planet”.

The programme was organized by Ms. Suwarna Kawale (Biologist, Maharajbagh Zoo and other faculty members in the presence of Guest of Honour Dr. Anjali Rahatgaonkar Mam, Director, Institute of Science, Nagpur and Chief Guest Dr. Sunil Bawaskar Sir, Officer In-charge, Maharajbagh Zoo, Nagpur brief the students about the importance of Wildlife In this program a virtual visit to Maharajbagh zoo were conducted. Various activities were taken in that expert talk by Dr. Motghare, Shri.Gopal Thosar, Shri. Nagapurkar and Dr. Anagha Patil were taken where they enlightened the students about the importance of wildlife, to protect the flora and fauna and to conserve wildlife and their habitats. Quiz Competition, Wildlife Short Films and Photography Competition on Wild Species in natural habitat were also organized and hosted by Yashi Sharma and Jui Pandharipande.

WORLD WILDLIFE DAY



On 3rd March 2022 our department of Environmental Science, Institute of Science on World Wildlife Day conducted a visit to Maharajbagh Zoo, with the kind consent of Dr. Mohd. Idrees M. Siddique Sir. The visit was guided by Mrs. Suwarna Kawale (Biologist, Maharajbagh Zoo, Nagpur). Entire MSc. 1st and 2nd year students with teaching department visited over there. Suwarna Mam explained about animal's behaviour, how they maintain the animal's habitat, food, health, and hygiene too.



Mam also guided us with their day-to-day activities and gave the information regarding animal's keepers as they are care taker of the animals. The visit was organized to raise the awareness about conservation of animals especially keystone species. The program was conducted by Yashi Sharma and Sukhada Nagpure.

WORLD METEOROLOGICAL DAY



Visit to Regional Meteorological Centre, Nagpur was organized by Department of Environmental Science on 23 March 2022 with the kind consent of Dr. Mohd. Idrees M. Siddique Sir. The Theme of the World Meteorological Day 2022 was 'Early warning and early action' which focuses on intense weather patterns due to climate change.



In that visit they explain us about the instruments and devices which are used to measure weather phenomena like Rain Gauge, Anemometer, Hygrometer, Evaporimeter. These devices collect data from weather event some distance from the instrument and typically stores the data and often transmit the data at defined interval to central data centre.



Entire BSc 1st year, 2nd year, and 3rd year along with MSc 1st and 2nd year students of Environmental Science department were present in the visit. And it was guided by all departmental teachers and non-teaching staff also present over there. We also seen the “Radiosonde” weather balloon.

After that MSc. 1st and 2nd year student also visited at Doppler Mausam RADAR where the expertise team explains us about the Doppler effect and Doppler weather Radar. It is an instrument which is capable of detecting particles type (rain, snow, hail, etc.)

A VISIT TO NATIONAL ENVIRONMENTAL ENGINEERING RESEARCH INSTITUTE (NEERI)



On 8th of April 2022 a visit was organized by our Department of Environmental Science to NEERI on its 64th foundation day. Visit was organized for both BSc and MSc students with our faculty teacher Miss Sukhada Nagpure Mam.



In this all information regarding NEERI's achievement, scientists work on different Environmental issues, innovation done by scientists on various technologies for solving real life issues of Environment were displayed on boards. We got to know lots of information regarding it also we visited various other departments of NEERI too.

A VISIT TO SEWAGE TREATMENT PLANT, BHANDEWADI, NAGPUR



Visit to Sewage treatment plant Bhandewadi, Nagpur was organized by the Department of Environmental Science for B.Sc. final year and MSc 1st and 2nd year Students on 4th April 2022 with our faculty teacher Dr. AnaghaPatil mam.



Bhandewadi STP is one of the biggest collaboration projects of Nagpur NMC and MAHAGENCO with capacity of 200 MLD. Various treatment process was explained by experts Mr. Sisodia and Mr. Lalit Sir present over there. And we gain lots of knowledge regarding working processes of STP.



Post-graduate students of M.Sc. II year visited a Rice mill industry at Mul District Chandrapur with the faculty Dr.Anagha Patil to understand the processing and the waste generation.



Students of graduation and post-graduation visited Ambazhari Lake and were demonstrated Lakewater Sampling by Dr.AnaghaPatil and faculties Ms.Yashi Sharma and Ms.SukhadaNagpure



Student Internship Program

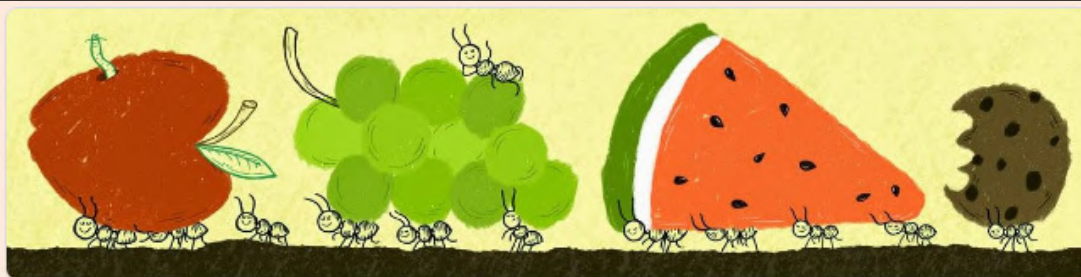
Students of M.Sc. part II worked on Environmental Audit of YCCE College as a part of short-term internship in association with The Global Scientific Inc. Nagpur an leading Environmental Consultancy. Team Lead: Dr.Anagha Patil, Team coordinator and Experts: Ms.Samruddhi Metangley, Ms.Sukhada Nagpure, Ms.Tejashree Padwe, Team for data collection: Ms.Jayashree Kale, Ms, Tanushree Mendhe, Ms.Shivani Deshmukh, Ms.Nisha Bihare and Shri. Nilesh



Department of Environmental Science with kind consent of Director Dr. Anjali Rahatgaonkar Ma'am and Head of Department Dr. Mohd. Idrees M. Siddique Sir, participated in Composting Activity Competition organized by Nagpur Municipal Council in institution category. Team comprised of: Dr. Anagha Patil, Ms. Sukhada Nagpure, Shubham Modankar, Sachin Ilpate, Ms. Tanushree Mendhe, Ms. Nisha Bihare



Department of Zoology



One day workshop on Stress Management and Immunity Boosting Nutrition

ORGANISED BY Department of Physical Education & Department of Zoology INSTITUTE OF SCIENCE NAGPUR



One day workshop on Stress Management and Immunity Boosting Nutrition

AGENDA

ANCHORE	DR.YASHASHREE GADHIKAR	11:00AM	08.07.21
INTRODUCTORY REMARK	DR.R.G.ATRAM		
INTRODUCTION - SPEAKER	DR. SWATI KOUSHIK		
SPEAKER- SPEECH	DR.MADHAVI MARDIKAR		
INTRODUCTION - SPEAKER	DR. SWATI KOUSHIK		
SPEAKER- SPEECH	DR RASHMI CHAUDHARI		
VOTE OF THANKS	DR.YASHASHREE GADHIKAR		

YOGA 8:00 AM



Department of Physical Education



One day workshop on Stress Management and Immunity Boosting Nutrition

ORGANIZED BY
Department of Physical Education
&
Department of Zoology

Patron



DR.DHANARAJ MANE
Hon'ble DIRECTOR
HIGHER EDUCATION M.S PUNE

8 JULY 2021

8 :00 AM - YOGA - DR MADHAVI MARDIKAR

11 :00 AM - STRESS MANAGEMENT
SPEAKER - DR MADHAVI MARDIKAR

12 :00 noon- IMMUNITY BOOSTING NUTRITION
SPEAKER - DR RASHMI CHAUDHARI



SPEAKER
DR RASHMI CHAUDHARI
B.H.M.S. KATOL



DR.R.G.ATRAM
Hon'ble DIRECTOR
INSTITUTE OF SCIENCE, NAGPUR



YOGA TRAINER & CONVENER
DR.MADHAVI MARDIKAR
HEAD,PHY. EDU. DEPT.IOS NAGPUR



ORGANISING SECRETARY
DR.YASHASREE GADHIKAR
ASSO.PROF.ZOOLOGY



CO-ORGANISING SECRETARY
DR.SWATI KAUSHIK
ASSO.PROF.ZOOLOGY



DR ARCHANA NERKAR
HEAD
DEPARTMENT OF ZOOLOGY



ORGANISING COMMITTEE - DR.KAVITA PATIL , DR. R.V. TIJARE, DR. ARUNA KAWADKAR, DR.J.S.MASKE

National Webinar on Neuroscience of Adolescence.
From Turmoil to Tranquility, Care to be taken
after vaccination & Mucormycosis (Black Fungus)
and white Fungus: Symptoms, precautions and
remedies

JOINTLY ORGANISED BY DEPARTMENT OF PHYSICAL EDUCATION , INSTITUTE OF
SCIENCE & VASANTRAO NAIK GOVERNMENT INSTITUTE OF ARTS & SOCIAL SCIENCES
NAGPUR

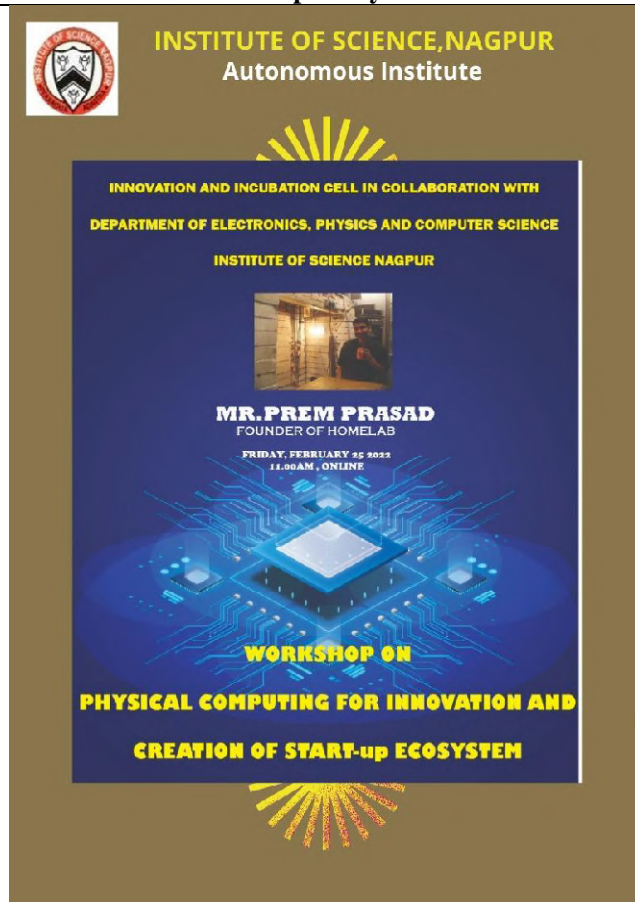
International Tiger Day-2021

Tigers Roar is Rare, Lets do not get it extinct! Join with Maharajbag Zoo, Nagpur on 29th
July 2021 to know more about fascinating facts of this wonderful creature.

Department of Physics

Workshop on Physical Computing: 25th Feb 2022

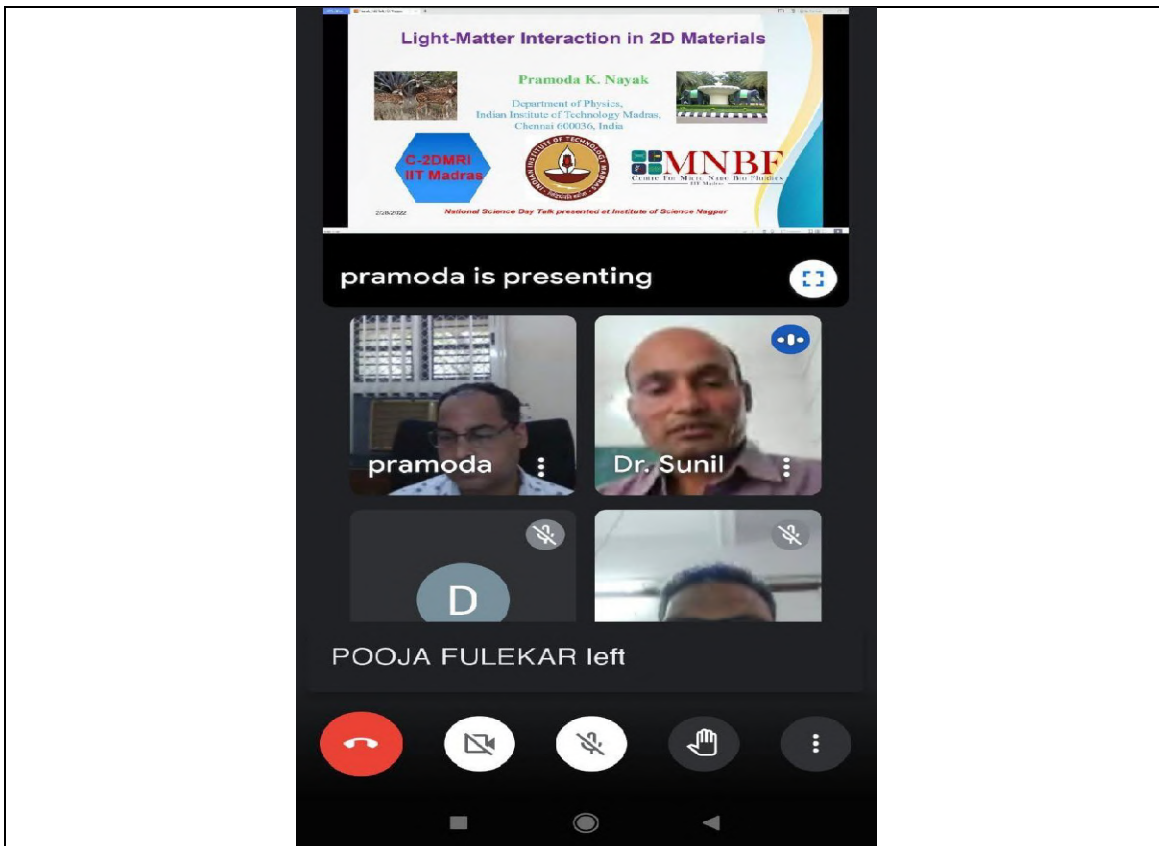
Innovation and Incubation cell in collaboration with department of Electronics, Physics and Computer science organized workshop on Physical computing for innovation and creation of start-up Ecosystem



This workshop was held for the students to know about physical computing and its advantages, design thinking, explore science concept, and to build practical applications. Physical Computing is building/designing/creating/making interactive systems that use different kinds of software and hardware to sense and respond to an external stimulus which could be a program, a problem statement, a need, an issue or simply an idea. In simple words -physical computing is a process where all the input and output devices work together as a single entity on the direction of a brain like object that could be a microcontroller board of a kind. Physical computing takes a hands-on approach, which means spending a lot of time building circuits, soldering, writing programs, building structures to hold sensors and controls, and figuring out how best to make all these things talk to each other and give the desired output. Smart automotive traffic control systems, factory automation processes, washing machines, fitness equipment found in homes, offices and industry –these are all things that make use of physical computing.

National Science Day Talk: Dt.28th Feb 2022

Report On Webinar Conducted by Department Of Physics and Department of Electronic, Institute of



The webinar was conducted on National Science Day, the faculty of department of physics and electronics, the physics society members, and numerous amount of the student were present. The webinar started with the welcome speech followed by introduction of our guest of honours Dr. Pramod Kumar Nayak. He shared with us about Light-matter interaction in two-dimensional materials. How technology is growing in material science, discovery in Two – dimensional material. Light-matter interaction in two-dimensional materials.

There are only few discoveries and new technologies in material science that have the potential to dramatically alter and revolutionize our material world. Discovery of two-dimensional (2D) materials, the thinnest form of materials to ever occur in nature, is one of them. After isolation of graphene from graphite in 2004, a whole other class of 2D van der Waals (vdW) layered materials evolve including hexagonal boron nitride, transition metal dichalcogenides (TMDs), Silicene, Germanene and so on, which have attracted considerable attention recently because of their novel properties and versatile potential applications with chemical formula MX_2 (where M = transition metals and X= chalcogens) exhibit strong light–matter interaction and pronounced excitonic behaviour even at room temperature, are potential candidates for emerging excitonic devices. Moreover, heterostructures made from vdW layered materials exhibit new emergent properties that are completely different from their constituent layers. Coupling between the two layers

depends on the stacking angle, which can be used as an external degree of freedom to tune their optical properties. Apart from excitonic ground states (X^0), TMDs and their heterostructures offer an excellent platform to explore fascinating higher-order excitations such as Trion (X^-), biexciton (XX), interlayer exciton (iX), hybrid exciton (hX) and so on. The emergence of these higher-order excitations mostly depends on the symmetry, temperature, and the band alignment of the heterobilayer systems. In this talk, I will cover the atlas of 2D materials and their heterostructures emphasizing on synthesis and study of light-matter interaction in these systems for potential applications in optoelectronics. With such a detail information and amazing explanation Dr. Pramod Kumar Nayak ended his lecture. This talk has influenced many of us to look forward and we should have more such discoveries. With a warm vote of thanks, we ended our webinar.

Department of Botany

National Science Day Celebration Programme 28th Feb, 2022



Pratibha Shakti Vidarbha Unit

in collaboration with

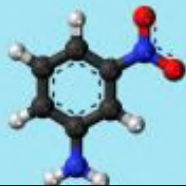
**Botany Department,
Institute of Science, Nagpur**

organizes

National Science Festival

Theme: Integrated Approach in Science &
Technology for Sustainable Future

A Series of Interview of Eminent Personalities



Visit to Maharajbagh Zoo





B.Sc. Sem II and B.Sc. Sem VI Botanical Excursion to Maharaj Bagh Zoo