

Pune District Education of Association's
Prof. Ramkrishna More Arts, Commerce and Science College
Akurdi, Pune

Best Practice 2019-20

Hands on Training Activities

Objectives:

- To strengthen the academic and physical infrastructure for achieving excellence in teaching and training.
- To enhance the quality of the learning and teaching process to stimulate original thinking through 'hands-on' exposure to experimental work and participation in summer schools.
- To promote networking and strengthen ties with neighbouring institutions and other laboratories
- To conduct specialized training programmes for faculty improvement for optimizing technical capabilities
- To increase capabilities of core instrumentation resources by procuring new equipment and upgrading existing facilities
- To provide access and exposure to students to research laboratories and industries in the country
- To help in devising standard curricula and Standard Operating Procedures (SOP's) / kits for practicals.
- To provide better library facility to students and teachers

1. NO. OF HANDS-ON EXPERIMENTS CONDUCTED

2019-20

Sr.No.	Date	Activity	Resource person
1	10-11-2019	One- day workshop on Research Project Ethics	Dr. Dhara Lakhhar IISER, Pune
2	10-11-2019	MANAV- Human Atlas Initiative	Dr. Dhara Lakhhar IISER, Pune
3	11-12-2019	workshop on Food Adulteration	Monera Labs, Pune
4	18/9/2019	workshop on Chemistry in day-to-day life for parents and B.Sc. students	Kroslink Polymer-Pune
5	24/12/2019	Construction of LED based colorimeter and its use	In-house Faculty
6	29/01/2020	Intercollegiate Workshop on Modern analytical techniques	In-house Faculty
7	20/7/2019	Herbarium preparation	In-house Faculty
8	17/1/2020	Validation and Industrial application of medicinal plants	IRSHU-Pune
9	01/2/2020	Isolation of soils mycorrhiza	Dr. Mahesh Borde- SPPU, Pune
10	7/10/2019	workshop on Annular Solar Eclipse	Khagol Vishwa –Pune- Astronomers without Boundaries
11	9/12/2019	Workshop on use of Advanced Excel	In-house Faculty
12	25/2/2020	Arduino based computer interface development	IIIT- Pune
13	13/1/19-	Drosophila as a Model for Genetic research	Prof. B.B. Nath, SPPU-Pune
14	20/1/20	Mounting of Chick embryo	In-house Faculty
15	25/1/20	Basics of Hematology	PRADO Pvt. Ltd-Pune
16	20/2/2020	Science Awareness camp for school students (Zoology)	In-house Faculty
17	26-28/8/2019	Hands on training on UV–VISIBLE Spectroscopy	In-house Faculty
18	3-5/9/2019	. Hands on Training on Conductometry and its application	In-house Faculty
19	10-12/2/2020	Hands on training on HPLC	In-house Faculty
20	11/1/2020	Hands on training on Spectroscopic techniques for Life Science	In-house Faculty

21	1/2/2020	Isolation of endophytic fungi	SPPU
22	20/12/2019	Chromatographic Techniques and its applications in Botany	SPPU
23	20/12/19	Hands on training on Computer based PCB making	Nutan Infotronics Pune
24	29/1/2020	Thin film deposition on substrate by using various techniques	In-house Faculty.
25	4/2/2020	Workshop on Entrepreneurship and start-ups in Basic Science	-

2018-19

26	26/9/2018	Setting up a Vermi-composting Unit	In-house Faculty
27	7/1/2019	Foldscope-Uses and assembly	DBT Sponsored Foldscope faculty (Arunachal Pradesh)
28	19th -24th /11/2018,	In- Industry Training for students	A-One CED Coating- Pune
29	25/8/2018	Hands-On training in Budding of Roses	PCMC Nursery
30	2/3/2019	Computation of green vegetation by using satellite data	Dr. Iliyas Khan, Poona College.
31	14/12/2018	Electronic designing for House hold Appliances	In-house Faculty
32	11/1/2019	LED bulb manufacturing	Swa-Oorja Institute- Pune
33		Hands on training in Molecular biology techniques and Bioinformatics	NCCS-Pune
34	17-18/1/19	Use of Excel and chemdraw Software in Chemistry	In-house Faculty
35	11/8/18	Hands-On training on Isolation of soil Mycorrhiza	SPPU
36	21/2/19	Hands-On training on Mobile Repairing	Saraswati Education Centre- Pune

(1) To design and build power supply

Design and build of Power supply hands-on training workshop arranged for Physics students in which students are taught to build power supply for different electronic appliances. Materials required for this are supplied to them. Step by step guidance is given to students. Students built their own circuits and design as well as test power supply. This helps student to testify in real world whatever they learnt in classroom.

(2) Telescope making workshop

The hands-on training workshops on design of telescope arranged for students. In this workshop point to point instructions were provided to students. They designed telescopes and tested. This was group activity. Number of groups are formed with three to four students in group.

(3) Basics of Microscopy – (Compound, Inverted, and Phase Contrast Microscope)

Objective of this activity is to make students understand about Microscopy. In this hands-on training workshops instructions are given to students about different microscopes and how to handle them. All types of microscope are made available to the students and their demonstrations are given. Students handle microscopes and make observations.

(4) Hands-on training on Basics of Histological techniques

Histology is the study of the cellular organization of body tissues and organs. Hands on training is provided to students on

- (a) To learn and understand the steps of section preparation.
- (b) To prepare thin sections and learn something about cellular structure.
- (c) To demonstrate an ability to work carefully and meticulously in the lab.
- (5) Hands-on training on analysis of the compound by HPLC

High performance liquid chromatography (HPLC) is instrumental methods of quantitative analysis of organic compounds. Chemistry department arranges hands on training workshop for T. Y. B. Sc. students on HPLC handling and quantitative analysis. HPLC method of analysis is one of the important techniques used in industries for quantitative analysis. Our aim is to give thorough knowledge to the students about this technique, though it is not included in practical of this class.

(6) Hands-on training on Elemental Analysis by AAS

Atomic absorption Spectroscopy (AAS) is instrumental methods of quantitative analysis of metals ions in samples at PPM level. Chemistry department arranges hands on training workshop for T. Y. B. Sc. students on AAS handling and quantitative analysis. AAS method of analysis is one of the important techniques used in industries for quantitative analysis. Our aim is to give thorough knowledge to the students about this technique, though it is not included in practical of this class.

2017-18

37		A one-day workshop on Bee keeping	CBRTI- Pune
38	19/9/2017	One-day workshop on Bioinformatics	PierianDX IndiaPvt Ltd.
39	21/8/2017	General chemical laboratory safety and Use of Fire extinguisher	NCL- Pune
40	21/8/2017	Hazards of chemicals, and Disposal of Chemical waste	Mumbai Municipal Corporation.
41	9/10/2017	Nurturing Native trees	Nisargsevak Sangh Pune
42	9/12/2017	Applications of Remote sensing in Botany	Dr Iliyas Khan, Poona College Pune
43	23/3/2018	Bonsai Making	Friends of Bonsai –Pune
44	25/8/2017	Telescope Making	In-house Faculty
45	, 9/12/2017	To design and build power Supply	In-house Faculty
46	13/1/18	Hands-On training -Basics of Microscopy	Prof. Nath-SPPU-Pune
47	14/1/18	Hands-on training on Basics of Histological Techniques	Dr. Leena Thorat, Women ScientistDBT Bio-CARe) SPPU, Pune
48	9/2/18	Analysis of the compound by HPLC	In-house Faculty
49	9/3/18	Elemental Analysis by AAS	In-house Faculty
50	29/8/17	Hands-On Training-Grafting, Budding and Layering	PCMC Nursery-Pune
51	2-3/2/18	Hands-On training on Mobile Repairing	Success Institute of Technology, Nigdi-Pune

2. NEW EXPERIMENTS INTRODUCED:

ZOOLOGY

F. Y. B. Sc.

1	Temporary preparation of different type of cells and their microscopic observation
2	Observation of Mitochondria from suitable material (leg muscle of Cockroach/ Plant material).
3	Study of Barr body in human.
4	To study the Principle, working and applications of micropipette, pH meter, digital balance with simple experiments.
5	To study the Principle, working and applications of autoclave, centrifuge and Laminar Air flow unit
6	Estimation of hemoglobin

S. Y. B. Sc.

7	Culturing of E. Coli in solid and liquid media
8	Study of colorimetry and spectroscopy.
9	Estimation of protein content from fresh fish
10	Total and differential count of WBC.
11	Preparation of Normal, molar and standard solutions, phosphate buffer, serial dilutions

T.Y.B.Sc.

12	Estimation of Starch
13	Isolation of DNA and its quantification
14	Set up of Bioassay to determine the toxicity of a given compound
15	Preparation of Insect culture and observation of life cycle of common vectors and whole mounts
16	Detection of adulterants from milk and milk products

Newly Added Practical (19-20)

1	FYB.Sc	Paper Chromatography
2	SY.B.Sc.	Preparation of Polytene Chromosomes
3	SY.B.Sc.	Separation of Amino acids by Thin layer chromatography
4	T.Y.B.Sc.	Estrous cycle in rat

CHEMISTRY

F. Y. B. Sc.

1	To find out strength of oxalic acid by redox titration by using KMnO_4
2	To determine equivalent of Magnesium metal by Eudiometrically.
3	Preparation of solution in different units of concentration
4	Preparation of Dibenzylidene acetone (DBA) from benzaldehyde

S. Y. B. Sc.

5	To determine Molecular weight of Sulphur by depression in freezing method (study of colligative property)
6	To determine pK_a value of weak acid by pH metry titration with strong base and choice best indicator.
7	To determine end point of titration of strong acid versus strong base by conductometry
8	Calibration of the pipette, burette and volumetric flask

T. Y. B. Sc.

9	Preparation of Acetanilide from aniline
10	Isolation of clove oil by steam distillation
11	Preparation of Benzilic acid from benzil.
12	To arrange ligand according to its $10Dq$ values of copper complexes with different ligands.
13	Jobs variation method Fe – sulphosalicylic acid by colorimetry.
14	To determine SO_4^{2-} from water by Turbidimetry
15	To determine water of crystallization by thermogravimetrically.
16	Recording absorbance spectrum and its analysis spectrum of acetone and P-Nitrophenol
17	Verification of Beer's law and determination of linearity range and detection limit.
18	Determination of conductance and specific conductance of strong electrolyte by conductometry
19	Identification of strong and weak electrolytes from conductometric measurement.
20	Determination of total dissolved salts in hard water and waste water samples
21	To verify Debye-Huckel theory of ionic conductance from strong electrolyte using KCl , BaCl_2

Newly Added Practical (19-20)

1	Determination of stoichiometry of reaction between Fe^{2+} and KMnO_4 and determine equivalent weight of KMnO_4 in acidic medium.
2	Determination of Basicity hence equivalent weight of different acids
3	Synthesis of Azo dyes
4	Choice of best indicator in the titration between acetic acid and HCl
5	To determine the corrosion rate of a given metal strip in water, acid and alkali

BOTANY:

F. Y. B.Sc.

1	To study various culture techniques and serial dilution techniques
2	Study of types of pollen grains
3	Preparation of stains
4	Collection of plant and preparation of Herbarium

S. Y. B. Sc.

5	Callus induction using carrot root
6	To study and water analysis by using electrical conductivity meter
7	Separation of DNA by using Agarose Gel Electrophoresis
8	Isolation of plasmid DNA

T. Y. B.Sc.

9	Study of Representative Genera belonging to zygomycotina
10	Study on monochromatic light on Photosynthesis
11	Determination of Respiratory Quotient using Ganong's Respirometer
12	Indirect organogenesis by using moth bean

PHYSICS:

F.Y. B. Sc.

1	Free fall of a body
2	To calculate magnetic susceptibility and to identify Dia, Para and ferromagnetic materials
3	To verify Newton's second law of motion
4	Online learning of Lees method to calculate the thermal conductivity
5	Online learning of design of Kirchhoff's circuit.

S. Y. B. Sc.

6	Study of Components used in electronic circuit
7	To determine the spring constant using computer interfaced experiment
8	To study force oscillation in simple pendulum.
9	Damped oscillator (L.C.R Circuit)
10	Online learning of Newton's ring
11	Online learning of circuit theorem
12	Online learning of Filter circuit

T. Y. B. Sc.

13	Determination of Potential energy curve on a Linear track
14	14. Acceleration due to gravity on a Linear air track
15	15. Faraday's Law of Electromagnetic Induction
16	16. Online learning of e/m by Thompson method
17	17. Online learning of Michelson interferometer
18	18. Online learning of Andersons bridge

Newly Added Practical (19-20)

1	To find acceleration due to gravity using Kater's Pendulum
2	Study of MS-excel
3	Study of Components in electronic circuits.

3.TRAINING RECEIVED BY FACULTY.

2019-20

Sr.No	Name	Date	Training Program
1	Dr. A. J. Khandagle	14/2/2020	Training on Financial Accounting at online Public financial management System (PFMS) at B.R. Gholap College, Pune
2	Dr. R.A. Morey	14/2/2020	Training on Financial Accounting at online Public financial management System (PFMS) at B.R. Gholap College, Pune
3	Dr. V.D. Shriram	14/2/2020	Training on Financial Accounting at online Public financial management System (PFMS) at B.R. Gholap College, Pune
4	Dr. R.P. Chatterjee	23/10/19-12/11/19	Refresher course, on Biosciences at Birla College Kalyan, Mumbai
5	Dr. H.B. Sonavane	23/10/19-12/11/19	Completed Refresher course, on Biosciences at Birla College Kalyan, Mumbai
6	Ms. Pallavi Takawane	11-12/2/2020	Concepts, Tools and Techniques in ecology and behavioural research-S.P.College Pune
7.	Dr. R.A. Pawar, Dr. D.R. Shinde, Dr. K.M. Gadave, Dr. S.P. Rasale	15-16/11/2019	Rasale-Q dot Glass and Solar Energyfor Waste Water Processing Technology organized by Centre for Material for ElectronicsTechnology (C-MET) Pune and University of LEEDS,UK
8	Dr. D.R. Shinde, Dr. K.M. Gadave	16-18/1/2020	National workshop on Multifunctional materials and Instrumentation for emerging applications SPPU, Pune.
9	Dr. A.J. Khandagle, Mr. D.S. Bhange	30/9/2019-5/10/2-19.	Faculty development program on cyber security, Prof. Ramakrishna More College, Akurdi, Pune

2018-19

Sr.No.	Name	Date	Training program
10	Mr. Akash Bagade	19-20/5/2018	Hands on training in Molecular Biology Genome Bio Pvt. Ltd.
11	Mr. Akash Bagade	20/2/2019-6/3/2019	Certificate course in Limnology. Modern College, Pune-
12	Ms. Bithika Baidya	20/2/2019-6/3/2019	Certificate course in Limnology. Modern College, Pune-
13	Dr. R.A. Pawar	20-21/2/2019	Resources in Teaching, learning and research. B.J.S. College, Pune.

2017-18

Sr.No	Name	Date	Training Program
14	Dr. K.M. Gadave	- 27/11/17- 11/12/17	-Attended Science Academies Refresher Course in chemistry organized at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune
15	Dr. S.P. Rasale, Ms., Anita Pandit	6-8/11/17	. “Green Chemistry Workshop” at IISER- Pune, -
16	Ms. Anita Pandit	11-13/12/17.	Workshop on Research based Pedagogical Tools at IIT Gandhinagar, Gujrat, Organized by IISER, Pune
17	Dr. R.A. Morey	7-13/6/2017	17. - UGC Sponsored Short Term Course on Gender Sensitization, HRDC- Nainital
18	Dr. A.J. Khandagle	7-13/6/2017	UGC Sponsored Short Term Course on Gender Sensitization, HRDCNainital
19	Dr. R.A. Morey	30/4/2016- 20/5/2016	UGC Sponsored Summer School on Higher Education: Walk the Talk

4. EXHIBITIONS/SEMINARS/TRAINING COURSES CONDUCTED

Science Exhibition (SE):

1. Intercollegiate Interdisciplinary SE, 12/12/2019, 131 exhibits by 254 students from 17 colleges in and around Pune, Total beneficiaries 500 UG Students.
2. Intercollegiate SE and Poster Competition, 12/12/2018, 52 exhibits by 104 students from 06 colleges, Total beneficiaries 480 UG students.
3. Intercollegiate SE and Poster Competition, 12/12/2017, 86 exhibits by 168 students from 10 colleges, total beneficiaries 500 UG students.

5. TRAINING COURSES/ SEMINARS ORGANISED

2019-20

Sr.No	Date	Topic
1	30/9/19 to 5/10/19	Teachers training in cyber security
2	20/11/19 to 27/11/19	Winter School in Plant Tissue Culture and related techniques-
3	30/6/20 to 4/7/2020	Workshop on use of Moodle-.
4	3/3/2020	Plagiarism in Research-
5	29/1/2020	Workshop for teacher's training on Advance analytical techniques-
6	3/2/2020	James Web Telescope: Working and Applications-
7	29 /2 2020	One day training Workshop on "LED & Circuit Designing" -
8	4/2/2020	One-day Workshop on "Entrepreneurship & Startups in Basic Science"-
9	2/2/2019	Training Workshop on "Mobile Repairing"-
10	13/12/2019	Seminar on Recent trends in Physics and Electronics, Dr. S.R. Rondiya, from Cardiff University, London,

2018-19

11	2/7/2018 to 7/7/2018	Summer School in Tools and Techniques in Biological sciences
12	21-22/12/2018	Seminar on "Advancing Entrepreneurship: Inspiring Young People
13	8/3/2019	One-day workshop on Histology
14	18/3/2019	14. Laboratory safety techniques
15	25/8/2018	15. One-day workshop on FTIR Instrument in collaboration with Lab India
16	14/12/2018	16. Workshop on "Electronic Circuit Designing for Household Applications"
17	15-16/2/2019	17. International Conference on "New Frontiers in Environmental and Allied Sciences".

2017-18

18	29/3/2018	Doctoral and Postdoctoral research facilities in South Korea.
19	5/4/2018	Training on Nano drop spectrophotometry,
20	28/3/2018	Solar Panel Installation,
21	18-19/1/2018	International Conference on "Frontiers in Life Sciences and Earth Sciences".
22	17/1/2018	One-day workshop on handling of UV-Vis spectrophotometer & Gel electrophoresis,
23	9/2/2018	Workshop on Remote Sensing.
24	23/3/2018	Training on Bonsai Making

6.EDUCATIONAL VISITS

2019-20

1	11/1/2020	Noble Laureate, Prof. Eric Weichaus at IUCAA Pune
2	3/10/19	National Research Centre [NRC] for Grapes Manjari, Hadapsar, Pune
3	3/10/19	Central Instrumental Facilities [CIF] SPPU, Pune
4	2/12/19	National AIDS Research Institute (NARI) Pune
5	17/12/19	National Chemical Laboratory (NCL)
6	14/12/19	Science Park, Chinchwad Pune
7	4/10/19	Mapro Industries, Mahabaleshwar
8	21/11/19	. Central Bee research institute (CBRTI) Shivajinagar, Pune
9	16/1/2020	Inter University Centre for Astronomy and Astrophysics (IUCAA)
10	23/1/2020	Regional Forensic Lab, Pune
11	28/1/2020	Giant Metre Wave Radio Telescope (GMRT)- Kodad Pune
12	3/2/2020	Indian Institute of Science Education and Research (IISER) Pune
13	3/2/2020	. National centre for Polar and Ocean research (NCPOR), Goa
14	14-15/2/2020	PRADO Life Sciences, Ravet, Pune
15	24/2/2020	Freshwater Pearl culture center, Badlapur-Mumbai,
16	23/2/2020	Karnala Bird Sanctuary, Karnala
17	3/10/19	Sugar Institute [VSI] Manjari, Hadapsar, Pune
18	4/1/2020	Sant Tukaram Sugar industry, Kasarsai, Pune
19	18/2/2020	Waste water treatment plant Akurdi, Pune
20	1/10/19	PCMC-Plant Nursery
21	14/12/19	Kisan exhibition by Govt of Maharashtra- Moshi-Pune
22	11/2/2020	Agriculture College- Floriculture department and Polyhouse,

2018-19

23	8/8/18	Govt.Fish breeding Center, Hadapsar, Pune
24	24/9/18	National Aids Research Institute, Pune
25	26/9/18	Zoological Survey of India

26	27/9/18	Katraj Dairy, Pune
27	28/9/18	Indian Institute of Tropical Meteorology, Pashan, Pune
28	9/1/19	IISER-Pune
29	28/9/18	Centre for Materials for Electronics Technology, Pashan, Pune
30	1/2/19	Sant Tukaram Sugar Industry, Kasarsai, Pune
31	25/2/19	Science Park, Chinchwad, Pune
32	7/3/19	Waste water treatment plant Akurdi
33	27/9/18	Eco-friendly aromatic and medicinal plant nursery; Somatane, Pune
34	21/1/18	Agriculture college, Pune, Department of Plant Pathology, Horticulture
35	8/9/18	Wild edible exhibition, Pune

2017-18

36	24/7/17	Central Bee Research Institute(CBRTI), Shivajinagar Pune
37	28/8/17	Zoological survey of India (ZSI), Pune
38	16/9/17	Science CSIR exhibition, NCL, Pune
39	1/2/18	Indian Institute of Science Education and Research (IISER), Pune
40	28/2/18.	National Aids Research Institute (NARI), Pune
41	11/9/17	Sewage Water Treatment Plant, Pune
42	29/8/17	Lotus Garden Pimpri- Pune
43	14/12/17	Botanical Survey of India
44	26/12/17	BARC Exhibition and Seminar-PCCOE-Pune

7. INVITED LECTURES

2019-20

Zoology

Sr.No.	Date	Name of resource person	Topic
1	20/8/19	Prof. Anjan Banerjee (Co- Chair, Biology Division IISER, Pune	Opportunities in Basic Sciences
2	23/8/19	Dr. Surendra Ghaskadbi,ARI,Pune	Trends in Developmental Biology
3	11/10/19	Dr. Mayurika Lahiri Scientist E, IISER, Pune	Recent Trends in cancer
4	17/12/19	Prof.B.B. Nath Dept. Of Zoology, SPPU Pune	Drosophila genetic System
5	13/12/19	Dr. Sharad Talmale Scientist C ZSI, Pune	Basic Biology of Order Odonata
6	4/9/19	K. Algarasu, Scientist C NIV, Pune	Dengue Vector: Control Strategies
7	20/9/19	. Dr. Sameer Padhye, Postdoctoral Researcher Katholieke Universiteit Leuven	Research skills in Freshwater Zoology

Chemistry

Sr.	Date	Name of resource person	Topic
8	7/9/19	Prof. Avinash Kumbhar, Head-Dept. of Chemistry- SPPU, Pune	, Medicinal Chemistry.
9	9/9/19	Dr. P.D. Safai Scientist E, IITM Pune	Acid Rain
10	17/9/19	Dr. B.L.V. Prasad, Scientist G, NCL, Pune	Tailored Nano- particles synthesis for better interface with biology.
11	3/10/19	Dr. Debarata Rautary, Principal Scientist Tata Chemicals Innovation Centre	Advance Material Characterization Techniques
12	18/9/19	. Dr. Manish Shinde, Scientist A C-MET, Pune	Material characterization techniques by XRD, SEM and TEM
13	14/2/20	Dr. Ashutosh Abhaynkar DRDO, Pune	Magnetism
14	25/2/20	Prof. Dilip D Dhavale, Ex-Head, Dept. of Chem. SPPU-Pune	Nuclear magnetic resonance Spectroscopy.
15	25/2/20	Mr. Sunil Shinde, Executive Officer, Krosslink Polymer Pvt. Ltd., Pune	Safety measures in chemical industries.
16	17/2/20	Dr. Anil Markandeya, Fergusson college Pune	Molecular Spectroscopy
17	18/2/20	Dr. Subhash Pingale, SPPU-Pune	Quantum Mechanics
18	29/2/20	Dr. Sunita Gavali SPPU, Pune	Coordination chemistry and Magnetic properties

Botany

Sr.No.	Date	Name of resource person	Topic
19	3/8/19	Dr. Jeevan Singh Jalal, Scientist c- BSI Pune	Orchids of India.
20	4/10/19	Dr. Sourabh B Zimare, Scientist, Nowroj Godrej Centre for Plant Research	Tissue culture of medicinal plants.
21	5/10/19	Dr. Kartik Balasubramaniyaum, Scientist C-ARI.	Diatoms
22	5/10/19,	Dr. Sayyed Iliyas, Poona College, 5/10/19	Guidance for examination in Botany.
23	17/1/20	Dr. Suresh Jagtap, Asso. Prof. IRSHAU-Pune	Industrial application of medicinal plants.
24	1/2/20	Dr, Mahesh Borde, SPPU-Pune	Advanced techniques of isolation of soil mycorrhiza and endophytic fungi

Physics

Sr.No.	Date	Name of Resource person	Topic
25	10/1/2020	Dr. Shrikant Gabale,	Drone Mapping
26	9/1/2020	Dr. Ashok Rupnar,	Fun with Science
27	23/12/19	Dr. Dipti Siddhay, Asso. Professor of Physics-SPPU	Frontiers in Science
28	16/1/20	Mr. Rajesh Patil, Dept of Psychology RMC-Pune	Super-study skills and memory techniques.
29	10/1/20	Dr. Aparna Deshpande, Scientist at IISER, Pune	Scanning tunneling Microscopy

2018-19.

Zoology

Sr.No.	Date	Name of Resource person	Topic
30	3/8/18	Dr. Surendra Ghaskadbi, CSIR-Emeritus Scientist ARI-Pune	Hydra and its use as a model system
31	3/8/18	Dr. Chinmoy Patra, Scientist C, ARI-Pune	Zebra fish as a model organism
32	6/9/18	Dr. Yogesh Shouche, Scientist G” NCCS, Pune	DNA Fingerprinting
33	6/8/18	Dr. Sachin Patil, ZSI, Akurdi Pune	Opportunities in Biological Research
34	12/12/18	Dr.V.D. Hegde, Scientist, D, ZSI-Pune	Morphotaxonomy of Insects
35	16/3/19	Dr. Vijay Nema, Scientist E, NARI-Pune	Recent advances in HIV Research.
36	4/1/19	Dr. Shrikant Pawar, Scientist C, NCCS-Pune	4/1/19

Chemistry

Sr.No.	Date	Name of Resource Person	Topic
37	27/12/18	Dr. Shainaz Landage, Georgia southern University-USA,	Research Opportunities Overseas.
38	25/8/18	Dr. Golak C. Mikap Ex Director, Emcure Pharma, Pune	Chemical reactions
39	10/8/18,	Dr.N.N. Bhujabal AMC-Pune,	Stereochemistry of Cyclohexane.
40	23/8/18	Dr. Dilip Thube, New ACS College, Ahmednagar	Inorganic Chemistry for Competitive examinations.

41	23/8/18	Dr. Shankar Thopate, Ahmednagar College,	Strategies for synthesis of applied organic compounds.
42	24/1/19,	Dr. Balaprasad Ankamwar, SPPU-Pune,.	Principles of Thermodynamics
43	19/1/19	Dr. Prashant Alegaonkar Defense Institute of Advance Technology Pune,.	, Preparations and properties of Carbon nanotubes.

Botany

Sr.no	Date	Name of resource person	Topic
44	4/8/18	Dr. Amerada Upadhye, Scientist C, ARI-Pune	Medicinal plant resources.
45	7/8/18	Dr.Sujata Tetali, Scientist C, ARI-Pune	Grape breeding for disease resistance.
46	10/8/18	Dr Milind Sardesai, SPPU-Pune	Plant Nomenclature
47	11/8/18	Dr Mahesh Borde SPPU-Pune,	Isolation of Soil Mycorrhiza.
48	6/2/19,	Mr. Rajesh Gade, Lotus Business School. Pune,	Herbal Technology: Career Opportunities
49	2/3/19	Dr. Iliyas Sayyed, Poona College	Computation of Vegetation using Satellite data

Physics

Sr.No	Date	Name of Resource person	Topic
50	11/8/18	Dr Dipti Siddhay Asst. Prof., SPPU, Pune, ,	Introductions to Nanomaterials
51	16/8/18	Dr S.D. Aghav, BGC Pune, ,	Innovative experiments in Physics
52	1/9/18	Dr. Adinath Funde, Asst. Prof., SPPU, Pune, ,	Photovoltaic Technology.
53	12/9/18	Dr S.G Kandalkar, Asso. Prof. PCCOE, Pune,	Research Methodology.

2017-18

Zoology

Sr.no.	Date	Name of resource person	Topic
54	14/7/17	Dr. Sangeeta Kulkarni, Scientist D; NARI, Pune	Medical and clinical aspects of Parasitology.
55	15/7/17	Dr. Abhijeet Kadam, Scientist C; NARI, Pun,	Various Instruments used in Pharma and Biotech Industry.
56	15/7/17,	Dr. Vijay Nema, Scientist E; NARI, Pune	Basics of Molecular Biology and its application
57	18/7/17	Dr. Aarti Mane, Scientist D; NARI, Pune	Good Laboratory Practices and Microscopy

58	18/7/17,	Dr. Ashwini Shete, Scientist D; NARI, Pune,	Basic Immunology and techniques
59	19/7/17	Dr. Hariom Singh, Scientist E; NARI, Pune, ,	Cell cycle and its checkpoints.
60	12/12/17	Dr.A.A. Natu, Visiting Faculty- IISER, Pune,	Career opportunities in Basic sciences

Chemistry

Sr.No.	Date	Name of Resource person	Topic
61	15/9/17	. Dr. Ramkrishna Bhat IISER, Pune, ,	Innovation in Chemistry
62	15/9/17,	Dr. V.C. Anand IISER, Pune,	Material Science.
63	10/1/18	Dr.V.D. Avasare, S.P. College, Pune, ,	Redox reaction Reagents in organic Synthesis
64	11/1/18,	Dr. Preeti Choudhari Women scientist IISER, Pune	BeyerViliger, Feviski, Woulf Rearrangement Reaction.
65	11/1/18	Dr. Sunil Kulkarni, S.P. College, Pune, ,	Atomic Structure- Bohr's theory.
66	17/1/18	Dr. Ujwala Patil, Fergusson College, Pune,	Free Energy and Equilibrium.
67	7/2/18,	Dr. Anil Markandey, Fergusson College Pune,.,	Molecular Spectroscopy
68	12/9/17	Dr. Sushma Katade, Modern college Pune	Stereochemistry

Botany

Sr.no.	date	Name of resource person	Topic
69	2/8/17	Dr. Sachin Punekar, NGO- Ecosphere Scientist BSI, Pune, ,.	Biodiversity of Past,Present and Future w.r.t. Western Ghats
70	4/8/17	Dr. Prakash Diwakar Retd. Director ARI, Pune	Plant Resources used by the Tribes of Andaman & Nicobar Islands.
71	4/8/17	Dr. Gurumurthi Hegde, Scientist Omniaactive Pvt Ltd., Pune,	Medicinal Botany in Herbal Industry.
72	5/8/17	Dr. Riteshkumar Choudhary, Scientist C-ARI Pune,	Plant Taxonomy in changing world,
73	9/10/17	Dr. Vinaya Ghate, Emeritus Scientist ARI, Pune, ,	Nurturing Native Plants.
74	9/12/17	74. Dr. Mayur Nandikar, Scientist, Godrej Research Centre, Pune, ,	History of Botany in India.
75	26/3/18	75. Dr. Zunzarrao, Principal Modern College, Pune, ,	Enhancement of Career Altitude in Botany

Physics

Sr.No.	date	Name of Resource person	Topic
76	14/8/17,	Prof. Sanjay Dhole, Dept of Physics, SPPU-Pune,	Application of Radiations for Society.
77	14/8/17	Prof. Mahindra More, Dept of Physics, SPPU-Pune,	Fundamentals of Microscopy
78	12/8/17	Dr Ravindra Sonawane, Scientist C, C-MET, Pune	Absorption emission Spectroscopy
79	12/8/17	Dr. Manish Shinde, Scientist A; CMET, Pune,	Introduction to Nanomaterials
80	9/1/18	Dr Sonali Kale, Asst.Prof. PCCOE, Pune, ,	LASER.
81	9/1/18	Dr Sunil Kandalkar, RSCOE, Pune,	Application of Nanomaterials.



Design and built power supply



Hands on training on Rota evaporator



Khandavi stall by S.Y B.Voc.



Grafting, Budding and Layering



Development of Vermiculture



Nurturing Native trees



Science Exhibition



Problem solving Sessions



Science Exhibition



Mathematical Ability Awareness Programme



Geography week