



# Vidyanagar College



(ACCREDITED BY NAAC AND GRADED 'B+')

**Vidyanagar ,P.O.-Charashyamdas,South 24- Parganas,Pin-743503**

Course name- Techniques of Palaeobotanical and Palynological studies

Duration- 30 hours

Starting date – 16/06/2023

Ending date- 30/06/2023

Number of participants- 50

Activities- Theoretical

Venue: Department of Botany and Department of Zoology, Vidyanagar College, Vidyanagar, South 24 – Parganas.

Aim of the training programme:-

Palaeobotany and palynology deal with the ancient plant remains which gives us an insight on vegetation and climatic information. It also helps to deduce origin and diversification of plants through geological time scale. Ancient plant life is being studied as a collection of subjects and not as a single subject. It covers morpho-anatomy, biochemistry, physiology, and genetics, among other aspects of botany. To know the past vegetation and climate, fossil study is a prerequisite. In general sense, fossils are divided into two groups, viz. megafossil and microfossil. Thin section and peel acetate techniques are used to determine the identity of megafossils among plant groupings based on their morpho-anatomical studies. Other than megafossils, palynomorphs, which are classified as pollen and non-pollen (phytolith, spore, fungus, algae, etc.) microfossils, are used to recreate the former environment and vegetation. Knowing the methods of extraction for the said palynomorphs is therefore necessary. In a nutshell, the purpose of including the aforementioned subject in the Add-On training is to give the students a broad idea about historical plant life and its habitat.

Faculty Profile:-

Trainer: Dr. Biswajit Mukherjee

Co-Ordinators :Ms. Meghma Bera, Asst. Prof., H.O.D., Department of Botany and Mr. Amit Kumar Gayen, Asst. Prof., H.O.D., Department of Zoology

## Training Schedule:

Day	Topic
1	Introductory idea on megafossil: Morphological aspect (vegetative and reproductive parts) and Anatomical aspect (Thin section and Peel acetate technique using hand lens and dissecting microscope)
2	Introductory idea on microfossil: Pollen and non-pollen palynomorphs
3	Study of pollen grains (maceration technique): Vegetation and climate analysis from peat, lignite and coal
4	Study of non-pollen palynomorphs (phytoliths, fungal spores): Techniques of – a) phytolith study and its implication; b) leaf cuticle study for the characterization of epidermal details
5	Technique of epiphyllous fungi study from leaf cuticle
6	Technique for study of pollen grains from honey and spider web
7	Technique for study of pollens from herbivore dung

### Summary of the Programme-

Department of Botany started the said programme on 16/06/2023. The duration of the training programme was 30 hours in 07 days in the month of June. Our trainer Dr. Biswajit Mukherjee taught different methods in palaeobotany and palynology which provided a general understanding of past plant life and its surrounding environment. Our students sincerely attended and understood the above-mentioned topics of the said training programme. Students received certificates at the end of the training programme on 30/06/2023 in the presence of the Principal, the Bursar, the IQAC co-ordinator, trainer and co-ordinators of the training programme.

# CERTIFICATE DISTRIBUTION TO THE PARTICIPANTS OF ADD-ON COURSE

