

B.M.S. COLLEGE OF ENGINEERING, BENGALURU- 19 (A
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nomous Institution, Affiliated to VTU, Belagavi)

INDUSTRY VISIT

To Research Facility (Anvesana) at S-VYASA

By students and faculty from

Medical Electronics and Engineering, BMSCE

Industrial Visit Report: 4 th sem students visit to S-VYASA University

Date of Visit: 22/07/23

Department of Medical Electronics

BMS College of Engineering

The participants were at the S-VYASA, Bangalore to learn about the research equipment and applications at Anvesana – the Research centre. Upon arrival at the campus, an introduction about the S-VYASA University was shared by Dr. Vasudeva Vaidya (Ayurveda Doctor and Research Scholar at the campus). The education and treatment for Yoga, Ayurveda, Naturopathy and Nursing are offered at the campus. Later Dr. Mithila from the Biochemistry research department shared about the research areas and laboratories at the campus with a short video presentation by Dr. N K Manjunath – Director Research, Dr. Deepankar Singh, Dr. Ramesh, and other faculty who explained in detail about each of the laboratories and applied researches.

Dr. Siva Sankara Sai, the Registrar of the University welcomed BMSCE participants with inspiring words mentioning his academic journey in physics and his current project in nuclear science. He also encouraged for more internships and projects for BMSCE students at S-VYASA.

BMSCE participants were then taken to the Research facility, Anvesana.

1. Molecular Bioscience laboratory works in the areas of Biology, Biochemistry and Genomics and helps to understand the effects of therapy at the cellular / molecular levels such as the DNA sequencing, HPLC (high performance liquid chromatography). Diabetes – type 2, cancer are the current areas of interest at this laboratory.

Detailed explanation of the spectroscopy devices and other equipment were given at the Biochemistry laboratory.

2. Psychophysiological laboratory works in the areas of finding effects of holistic treatments such as diet and nutrition, breathing practices, meditation, etc. on autonomic functions. Participants were able to understand about the polygraph device, spirometer (to measure lung functions), tilting table (to assess effects of yogic practices in 3 axes - XYZ),

the ergonomic cycle and stress test treadmill (to assess individual parameters and know baseline levels for each subject). They also understood about a fine measuring device to evaluate minor changes in respiration and blood pressure that is useful to find effects of breathing exercise - pranayama.

3. The Neurocognitive laboratory works on analysis of hemodynamic data

and other electrical signals using 128 channel EEG equipment, fNIRS (functional near infrared spectroscopy), etc. to find out how the dynamic yogic approaches effect the human system. The sleep laboratory measures the effects of interventions to improve quality and quantity of sleep.

4. The Bio-energy lab studies the effects of interventions on the energy fields of the environments and participants. One of the devices used is the GDV camera for Kirlian photography to measure aura in participants. This is useful for also the energy in each chakra centre and its treatment. This also helps to align with acupressure meridians. Sputnik is another device that can detect energy levels in the environment.
5. The psychology laboratory works on the effects of yogic practices on the qualitative and quantitative aspects. Several valid psychometric instruments are combined with the objective measurement devices such as the stability scale, London tower, etc.

The entire research visit was insightful and questions were answered with scientific explanations.

Faculty Coordinators: Dr. K Vijayalakshmi, Professor, Department of Medical Electronics Engineering

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Pictures of the Industry Visit



