**Best Practice II**

**1. Title**: **Promotion of Basic Science and scientific temperament among budding learners through Indepth programme** – a unique series of demonstration of science experiments for high school students

**2. Goals**:

* To bring about awareness of Basic Science.
* To make the college infrastructure especially the laboratories reach out to the rural and semiurban students.
* To provide practical demonstrations to those who are deprived of laboratory facilities in their schools
* To provide inputs for SSLC students towards higher education and career options
* To provide practice and hands-on experience to our BSc students in experimentation, demonstration, teaching practice, communication skills, self-confidence etc.,
* To provide impetus towards social commitment, environmental awareness, preservation of endangered and traditional breeds and medicinal species
* To inculcate the habit of research extension activities among the rural and semiurban students

**3. The Context**: Linking high school education with higher education: This innovative extension programme comprising 3 to 4 days started way back in 1984, with the noble intention of educating the high school students of Puttur and neighbouring taluks about the theory and application of science in order to promote their interest in Basic Science. It was initiated by the Science faculty with the leadership of Prof. DS Bhat, the then HoD of the Department of Physics and has been conducted during all these years, with commitment and passion. This step has been an awakening for SSLC students to gain practical knowledge of Basic Science, to choose their subjects of interest after their school level, and also to chalk out their career in their future life. The institution has a longstanding policy of educating all those who come seeking knowledge, and reaching out to the masses, and the objective of our parent body drafted in 1915 states so. In this light, the In-depth programme, as stated above, gives a lot of input to high school students towards stepping into the next levels of education, and for their career options. Applied learning: This annual In-depth event not only functions as a college activity, but also as an extension programme. The experiment demonstrations done by our degree students to high school students of Puttur and neighbouring taluks stress on Basic Science and applied learning.

**4. The Practice**:

Step 1: Planning: The Science faculty initiates the In-depth programme every year through a meeting with the principal and fixes the schedule and the dates for the programme. A Staff Coordinator is selected in this meeting. As per the directions of the Principal, the Coordinator and the heads of the departments of the Science faculty, the responsibility of the laboratories are assigned to various staff members. These staff members further select BSc students for the event. The Departments of Physics, Chemistry, Botany, Zoology and Mathematics form part of the event and gear up their laboratory’s modules.

Step 2 – Preparation: The Science faculty under the supervision of the coordinator undertakes the task of selecting schools from Puttur and neighbouring taluks for this annual event. For government schools, a letter is dispatched to the Block Education Officer requesting him to permit government schools to participate in this In-depth programme. Simultaneously, the selected list of schools is informed through a letter to the headmasters about the prescribed dates for their arrival to our campus. The selected BSc students are given the freedom to select the laboratory of their choice and knowledge, and the staff members train them in all the experiments to be demonstrated in that particular lab. Then the Science staff including the Lab assistants and the students prepares the laboratories for the event. Depending on the demonstration to be done, apparatus, samples, modules, models and components are prepared in the labs.

Step 3 – Execution: After the dates of the event are fixed, invitations are printed and dispatched to various schools with the schedule of events. The actual execution begins on the first day of the In-depth programme with a formal inaugural done by a teacher or researcher of Science. After the inaugural, the batch of school students and staff of that day are briefed about their schedule of lab visits. This procedure is systematically followed during all the days, for all the batches of invited school students in the 5 laboratories. Every day, the demonstrations in all the five laboratories begin at 9 am, and no invited school student is deprived of any experiment or sample/module. Our BSc students who do the demonstrations always welcome interactions from the school students, and because all BSc students in a particular lab are familiar with all the experiments and samples, these students move on a rotation basis as and when required. As mentioned above, this aspect provides the BSc students with a variety of information about Basic Science and also introduces them to the challenges of effective teaching.

Step 4 – Analysis: After the whole event is completed, staff members of the schools which participated in the programme are asked to give written feedback of the programme, thus helping us to realise the potential of Basic Science to school students and to build upon our expertise for the following years. The school students are requested to give us oral feedback.

**5. Evidence of Success**: The In-depth programme is being conducted since 1984, with commitment and passion towards acquiring and spreading knowledge in Basic Science and with the social responsibility of sharing our resources to the community. The main success of the event lies in the growing number of schools and students visiting the college during these days of the event. The highlight of the In-depth is not only to introduce topics of Basic Science but the care that the Science faculty takes to bring the topics of their high school textbooks mainly into the demonstration enables them to have a practical knowledge of the theoretical topics prescribed for them. This programme has benefitted thousands of SSLC students through the years for practical knowledge of Basic Science and to choose the Science stream in the education after their school level. Another positive impact is that some high school students of neighbouring schools who have known the potential of our laboratories approach the college with the official permission of their institution heads, to conduct experiments for Student Projects in inter-school, state, zonal, national and international levels.