

BEST PRACTICES (2019-'20)

Best Practice 1:

1. Title of the Practice: Enhancing Scientific Temper among Campus and Rural Communities: Public Demonstration and Seminar on Annular Solar Eclipse

2. Goal: To enhance scientific temper and critical thinking among the college community and the society around by warding off popular misconceptions and superstitions pertaining to solar eclipse.

3. Context: Though solar eclipse is a well understood natural phenomenon for science, it is still a matter of misconception and even superstition among the people at large. An annular solar eclipse happens when the moon covers the sun's centre, leaving the sun's visible outer edges to form a "ring of fire" or *annulus* around the moon. Of all the varieties of eclipses, this one is the rarest phenomenon as the earth, the moon, and the sun need to be aligned in a straight (or nearly straight) line. When we understood that the central path of the 2019 annular eclipse passes through the Saudi Arabian Peninsula, Southern India, Sumatra, Borneo, Philippines and Guam, and that it would reach India near Kannur, Kerala at 03:56 UT1, the PG & Research Department of Physics of the college decided to conduct a public event of demonstrating the same in association with the Indian Institute of Space Science & Technology (IIST), Valiyamala, Trivandrum. Various science departments of the college and the Kerala Sasthra Sahithya Parishath (KSSP) unit also were associated with the programme.

4. Practice: As a part of celebrating the annular solar eclipse, our UG and PG students visited nearby schools and arranged classes related to solar eclipse. Solar glasses were made by our students using material supplied by KSSP and the school students were taught to make the glasses. We also made arrangements for the public for viewing the eclipse. The annular solar eclipse started at 8.04 am on 26.12.19, but the necessary arrangements (the dark room set up built with a pin-hole camera within) to capture the annular solar eclipse were done from 6 am in the college ground by the MSc students and the teachers of the department. The resource persons from IIST, as promised earlier, reached the venue by 7 am to make the arrangements to view the eclipse, by projecting the captured image of the sun on a big screen. By 7.30 am, the public started to reach the venue to view the same, and by 7.45 am we could get a clear view of the sun on the screen. The various phases of the eclipse could be seen on the screen, and at the same time, Dr. Sarita Vig (IIST) explained in detail the phenomenon. She also detailed about eclipses in general, why one should not view the eclipse through naked eyes etc. By 9.27 am, the annular solar eclipse reached its maximum, and we could see the "rings of fire" on the screen. The view was so beautiful and serene.

5. Evidence of Success: The event was well appreciated by the society which has highlighted it as a token of the social commitment of the students and the commitment of the college to strengthening the scientific temper of the local community. The response that the students of our college received during the various classes conducted in various schools and public spaces was overwhelming. In order to achieve our goal of wiping off the various misconceptions and superstitions in relation to the solar

eclipse, we distributed “payasam” at the peak time of eclipse. By 10 am we put a closure to the public event, and through the reports that appeared in the media, we could ensure the success of the event. A one-day seminar was also conducted on the same day after this public event, for the UG & PG students of our college, and the two sessions were handled by the eminent resource persons from IIST.

6. Challenges: As the programme was well planned and organized with the support from PTA of the college, there were no major challenges, except the subdued response from a few elder people around. Lack of thorough scientific knowledge in them was identified as the reason for such responses, and the Physics Department (in association with other science departments) of the college has taken up the responsibility of creating a scientific culture among the common people around through various similar events and classes.

Best Practice 2:

1. Title of the Practice: Creation and Dissemination of Online Resources: Launch of YouTube Channel

(Link: <https://www.youtube.com/channel/UCqBY7llm13CJnqbfNYxTXKw>)

2. Goal: To provide quality e-content on the texts included in the syllabus of English courses and facilitate learning when physical classroom activities were halted by Covid-19 pandemic.

3. Context: When all educational institutions in the country had to be locked down in the second half of March 2020, all learning activities in the college unexpectedly came to a halt. Though we waited for two or three weeks expecting that the situation would improve and that we would be into the classes again, it didn't happen. Some portions of the second semester UG students were left uncovered. It is in this context that the Department of English decided to reach out to the students through a video lecture series for the English Common Course students and audio lecture series for English Core Course students.

4. Practice: As part of the initiative, the department launched a YouTube channel on 14th April 2020. There were two textbooks for the Common Course students covering 24 lessons. A staff meeting was conducted online and different lessons were allocated to all the 13 teachers. The teachers prepared the script for the video lectures and the same were subjected to a peer editing by the departmental colleagues. Using their own mobile phones, the lectures were recorded at home and were later sent to one of the teachers for editing. The edited videos were again scrutinized by a team of teachers and further changes, wherever necessary, were made. Finally the video lectures were uploaded on the Department YouTube channel one after another at regular intervals starting from 20th April. Later the audio lectures on the uncovered core course portions (two modules) were also recorded, edited, and uploaded in a similar way.

5. Evidence of Success: The project was launched initially to cater to the needs of the second semester students of our college who were around 600 in number. Later as per the request from neighbouring colleges, the video/audio links were shared with their students also and the response was quite overwhelming. The students as well as the teachers of almost all colleges under the university took the project to their hearts and the materials were shared widely. Over 80% of the students studying these courses under the university watched the videos. As per the present count the videos got over 1.62 lakh views and the channel has got over 2600 subscribers. It has started generating revenue also. This is, no doubt, a significant achievement as far as a channel started by a college, especially in a rural area, is concerned. The view statistics shows that ever since its launch the channel has been having viewers regularly; during examination time there has been a large scale escalation in the number of viewers.

6. Challenges: The success of the three lecture series (two video and one audio) lays further responsibilities on the department. Enquiries and request are pouring in to bring out similar series on the courses of the other semesters also. The department has started working on the video lecture series based on the third semester English Common Course, which will be launched soon. Lack of proper recording facility is the major challenge faced by the creators. Recording the videos without any sound disturbance from home has been a stumbling block. Efforts are on to bring in more professionalism in content, deliver, and technology.
