

Report
Two-Day Skill Development Workshop On Optical Designing Using Zemax Optic Studio
22nd and 23rd March 2024, Department of Physics, Anantapur Campus

Date: 01-04-2024

The Two-Day Skill Development Workshop on Optical Designing Using Zemax OpticStudio® provided an invaluable opportunity for participants, particularly III B.Sc. (Hons.) Physics students, to deeply engage with the intricacies of optical design. Led by experts in the field, the hands-on workshop equipped attendees with practical skills and knowledge essential for academic and industrial pursuits. By exploring the capabilities of Zemax OpticStudio® and engaging in real-world optical design exercises, participants gain a deeper understanding of the subject and unlock potential career pathways in optics and photonics. The workshop was organized by the department of Physics and coordinated by Dr. C. Prathibha, Associate Professor and Dr. Lavanya Rathi P, Assistant Professor of the Department.

Day 1: 22nd March 2024

The workshop commenced with an auspicious inaugural session that set the tone for the insightful discussions ahead. The day began with serene Vedam chanting, creating a tranquil atmosphere conducive to learning. Dr. C. Prathibha, Associate Head of the Department, extended a warm welcome to all participants, setting the stage for the engaging sessions to follow. The inaugural address by Prof. N. Srividya, Director of Anantapur Campus, and the keynote address by Dr. K. Vijay Sai, Head of the Department, provided valuable insights into the significance of optical designing in contemporary research and industry. Ms. Sai Srivaishnavi Guntury was the Master of Ceremonies for the workshop. Ms. B. Srikari introduced Dr. Vandana Sharma, the resource person of the workshop. This session was attended by all MPC students (I, II and III) to gain exposure in the field.

The workshop mainly focused on the Hands-on training of the Zemax OpticStudio during the two days. The workshop was conducted by Dr. Vandana Sharma, Associate Professor, IIT Hyderabad along with her students Ms. Haritha Nair and Ms. Angita Sanjeevan. The main participants of these sessions were III B.Sc. (Hons.) Physics students.

Session 1: Study of Simple Lens System

Participants delved into the fundamentals of optical design by exploring the intricacies of a simple lens system. Practical demonstrations and hands-on exercises facilitated an immersive learning experience, enabling participants to grasp essential concepts such as aberration, optimization, and troubleshooting.

Session 2: Effect of Aspheric Surface

Attendees gained valuable insights into the impact of incorporating aspheric surfaces into lens systems. Through practical exercises, participants learned to analyze aberrations and optimize system performance by introducing aspheric surfaces.



Day 2: 23rd March 2024

Session 3: Multiple Lens Systems

The day commenced with an interactive session where participants engaged in insightful discussions with the resource persons. Students had the opportunity to inquire about research opportunities, internships, and various higher education pathways, providing valuable career guidance.

Session 4: Designing Spectrometer

The final session of the workshop focused on designing a spectrometer using Zemax OpticStudio®. Participants were guided through the process of designing a spectrometer and optimizing its performance. Practical exercises allowed attendees to apply their knowledge and skills to create customized spectrometer designs tailored to specific requirements.

The workshop concluded with the presentation of a small token of appreciation to the resource person and a vote of thanks delivered by Ms. K. Sumithra.

Overall Evaluation:

Dr. Vandana Sharma commended the III B.Sc. (Hons.) Physics students for their exceptional involvement, enthusiasm, and efficiency throughout the workshop. Despite the rigorous schedule, participants exhibited remarkable speed and aptitude, exceeding expectations for each session. The workshop proved to be highly effective in providing participants with a comprehensive understanding of optical designing principles and practical skills.

The sessions not only enhanced the participants' technical proficiency but also provided valuable insights into potential career pathways and research opportunities. The workshop concluded on a high note, leaving participants inspired and equipped with newfound knowledge and skills in optical designing.



Workshop Convener

Dr. C. Prathibha

Associate Head, Department of Physics



Workshop Co-Convener

Dr. Lavanya Rathi P

Assistant Professor, Department of Physics

