

Report on the “Workshop & Hands-on Training on Chemometric Model Development and Software Usage of NIR” (17th May 2023)

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The Department of Pharmaceutics has organized a “Workshop & Hands-on training on Chemometric Model Development and Software Usage of NIR” on May 17th, 2023. Dr. K Gowthamarajan, Professor and Head of the Department of Pharmaceutics, chaired the session and delivered a welcome address. Dr. Karri V V S Narayana Reddy, Assistant Professor, Department of Pharmaceutics, introduced the resource persons. Mr. Bhanu Prakash R, Principal Scientist, SCIENCE4U Analytical and Research Solution Pvt. Ltd., Bangalore, started the morning session with the basic concept of multivariate data analysis. The delegates installed the trial version of the Unscrambler and then had the training session on the PCA model. He explained the spectral data to import, analyze and interpret using the software. The afternoon session started the theoretical concept of multiple linear regression, principal component regression and partial least square regression model. Then we had a training session on predicting octane numbers using the PLS method. Finally, the delegates gave the NIR spectra of standard and test samples to analyze the data using the software. We received a good response from the delegates. A total of 25 delegates attended the workshop, one of the delegates Ms. Pooniam Cathan Govinen from Mauritius attended the workshop, interacted with the resource person and benefited from her Ph. D project. and gave good feedback. The participants who attended the workshop will now be capable of doing multivariate data analysis, multiple linear regression, principal component regression and partial least square regression. At the end of the workshop, the delegates can test and develop the validation method using the unscrambler software.

