

# Chemometrics and Liquid Chromatographic Method Development

Under

## MHRD Scheme on Global Initiative of Academic Networks

### Overview

Chemometrics means calculating the data obtained from a chemical analysis. It could be as simple as interpreting a titration or as complex as designing optimization strategy for a chromatographic method development. Recently, it is also referred as linear algebra calculation methods, either for quantitative or qualitative analysis of obtained chemical data. Nearly all trained chromatographer have the basic understanding of the concepts of Chemometrics. But like all other fields, chemometrics has its own world, which makes its understanding a bit difficult for the beginner.

Chemometrics gives a chromatographer many different ways to achieve an optimum separation strategy for analysis of a group of compounds. Some are very simple to understand, while others require a strong background in linear algebra. Some methods have the advantage of being simple to understand but may not be very robust for all possible samples where as others method seems to be very complex, but gives solution that are very stable and can handle a large variety of "unknowns." In the above context, a one week course in "chemometrics and liquid chromatographic method development" is being organized at Department of Criminology and Forensic Science, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P).

The course is designed in such a manner that it will help a chromatographer in understanding chemometrics and to know which model to be used for a given separation problem and ultimately properly applying it on chromatographic separations. This one week course will cover sharing of knowledge in chemometrics with respect to liquid chromatographic methods. The participants of this course will be greatly benefitted and will enhance their knowledge and basic correlation between chemometrics and method development by the expert foreign faculty.

### Fee Details

<b>Module</b>	<b>CHEMOMETRICS and LIQUID CHROMATOGRAPHIC METHOD DEVELOPMENT</b> <b>06<sup>th</sup> June to 11<sup>th</sup> June, 2016</b>
<b>Who can attend</b>	<ul style="list-style-type: none"><li>✚ Post graduate and doctoral student, postdoctoral fellow interested to learn the basics of chemometrics and chromatographic technique</li><li>✚ Faculty members, scientists from academic/research institution working with chromatographic techniques.</li><li>✚ Participants from the industries or laboratories.</li></ul>
<b>Fees</b>	<ul style="list-style-type: none"><li>✚ Students <b>INR 1000/- (INR 500/- for SC/ST candidates)</b></li><li>✚ Faculty/Scientists/ Researchers <b>INR 2000/-</b></li><li>✚ Participants from industries <b>INR 5000/-</b></li><li>✚ Participants from abroad <b>US \$200</b></li></ul> <p><i>The above fee includes registration fees and all the instructional materials with experimental facilities. Accommodation if required could be arranged for the participants on payment basis.</i></p>

## Expert Faculty

### Prof. Josep Esteve Romero



He is a professor of Analytical Chemistry, Department of Experimental Science, Universitat Jaume I, Castellon, Spain since 1992. Prof. Romero is presently carrying out research in the area of Bioanalytical Chemistry. He leads the group of Bio Analytical Chemistry, by coordinating with other colleagues and research students in the area of health, Environment and Food Science. He has developed various analytical techniques for drug of abuse, anti-cancerous drugs and anti- retroviral drugs. Most of the developed methods are being used in Government Hospitals for routine analysis. He has published more than 140 research papers in high impact journals and presented more than 200 research work in various conferences. He successfully completed around 20 projects funded by various funding agencies including European Union and supervised 14 doctoral theses.

### Dr. Devasish Bose



Associate Professor in Department of Criminology and Forensic Science, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P), He works in the field of liquid chromatography and capillary electrophoresis. His field of interest is adulterants in food materials, pesticides, monitorized drugs, apart from other interesting fields of forensic science and toxicology. Using liquid chromatographic and capillary electrophoretic techniques he published more than 50 research articles in high impact journals and has produced 5 Ph.D.

### Course Coordinator

#### Dr. Devasish Bose

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