



Department of Science & Technology  
(Government of Gujarat)



सत्यमेव जयते



**GUJCOST SPONSORED ONE DAY INTERNATIONAL  
e-SEMINAR ON  
“ROLE OF MULTI-COMPONENT SYSTEM IN  
PHARMACEUTICAL FORMULATION DEVELOPMENT”  
2<sup>nd</sup> January, 2021**



**ORGANIZED BY  
DEPARTMENT OF PHARMACEUTICAL SCIENCES,  
SAURASHTRA UNIVERSITY, RAJKOT**



Accredited Grade “A” by NAAC (3<sup>rd</sup> Cycle)

**Free online registration!**

**Click Here for Registration: <https://forms.gle/7UoepeNF3auvfdCE8>**



## ABOUT SAURASHTRA UNIVERSITY

Saurashtra University, established on 23rd May, 1967, is situated in Rajkot city of Gujarat State. The campus of the University is spread over 360 acres of land. The jurisdiction of the University includes Amreli, Jamnagar, Junagadh, Porbandar, Rajkot, Surendranagar, Morbi, Gir Somnath & Dwarka districts. It has 29 Post graduate Departments on its campus and 320 affiliated colleges.

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## ABOUT THE DEPARTMENT

Department of Pharmaceutical Sciences is AICTE, PCI and UGC-SAP approved first P.G. department in entire Saurashtra region established in 2006. It imparts AICTE and PCI approved B.Pharm & Management Integrated, M. Pharm in Pharmaceutics, Quality Assurance, Herbal Drug Technology, Pharmacology, Pharmaceutical Biotechnology, Pharmaceutical Regulatory Affairs and Ph.D. in Pharmacy. Department is also going to start Pharm.D course sponsored by Government of Gujarat from 2018. Till now more than 100 research papers have been published in various referred national and International journals and more than 200 papers have been presented by students and faculties. More than 22 major and minor research projects have been sanctioned by various National Bodies like UGC, DST, AICTE, ICMR, GUJCOST, DBT and GSBTM. Department of Pharmaceutical Sciences is enrich with instrumental facilities like LC-MS/MS, HPLC, AAS, HPTLC, DSC, FT-IR, Particle size analyzer, Brookfield viscometer, Spray dryer, Lyophilizer, Microultracentrifuge, Probe Sonicator, High Speed Homogenizer, GC MS/MS, FBP and many more with worth more than Rs. 5.5 Crore.

## ABOUT THE SEMINAR

This Seminar provides a brief overview of multi-component solid forms, their preparation methodologies, characterization, evaluation, bio-pharmaceutical aspects, scale up issues, and regulatory perspectives related to crystalline solid forms. Improvement in the physical properties of API without changes in the chemistry is made possible along with application of solid binary component. US Food and Drug Administration (FDA) has recently introduced new regulatory guideline regarding this solid form that is anticipated to expand patent portfolios. Thus, Multi-component formulation provides the options to combine the drug with co-crystals, co-amorphous and eutectic systems which is gaining a widespread interest in pharmaceutical industry. The scope of this seminar is to enhance the knowledge in multi-component formulation development as This system is easy to commercialize and it helps to the Pharmaceutical Industry and society for research & development. Research and development require skill to develop Multi-component formulation which can rectify the problem regarding the solubility of drug and the release profile. A multi-component system improves solubility, compressibility and bioavailability of poorly soluble drugs by different techniques simultaneously. The concept of crystal engineering was successful to prepare eutectic as a potential way for improving material functionality. Multi-component system designed to improve the pH-dependent solubility and dissolution rate of API. Thus, it improves the oral absorption across the gastrointestinal tract. This one day seminar will impart the thorough knowledge to academic person, research scholars and industrial personals about the multi-component formulation development, case studies and improvement of product quality. It will also magnify the current thinking in this area, the state of art in pharmaceutical industry, Multi-component formulation design and its implication of this interaction on material properties.



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## OBJECTIVES OF THE SEMINAR

- Provide a scientific platform to fellows, faculties and mentors to discuss the Multi-component system and role in formulation development.
- To promote future collaborations among academia and industry that support research.
- Characterization and analytical method development challenges and approaches concept to MCF
- Role of Multi-component system for the drug development and challenges

## FOR WHOM

All the Industrial professionals, faculties and PG and Ph.D students of national pharmacy colleges.

## NUMBER OF PARTICIPANTS RESTRICTED TO: 150

Free for Registration: Free

## RESOURCE PERSON

Eminent resource persons from Industries and academics will be guiding to understand the concept for the given seminar.



### Dr. Changquan Calvin Sun

Professor, Director of Graduate Studies, and Associate Department Head, Department of Pharmaceutics, University of Minnesota.

Expertise in Formulation, Solid state chemistry, Power technology, Crystal Engineering, Material Science and engineering

### Dr. CVS Subrahmanyam

Professor & Principle, Gokaraju Rangaraju College of Pharmacy, Osmania University, Bachupally, Hyderabad-AP, India.

Expertise in Physical Pharmacy and preformulation studies, Solid state manipulators- Crystalization, Co-crystal NDDS-Aquasomes, SLN, Lquisolid compacts.



### Dr. A. K. Bansal

Professor & Head, Department of Pharmaceutics, NIPER, Mohali.

Expertise in Amorphous systems, crystal habit and biopharmaceutical performance of BCS class II Drug, Phase behavior of drug during freeze concentration in the lyophilization solids.

### Dr. Rena Chaddha

Professor, Pharmaceutical analysis, Punjab University, Punjab.

Expertise in co-crystallization, structural engineering of biopharmaceutical, Development of Novel Pharmaceutical solid forms.





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Last date for Registration: **25<sup>th</sup> December 2020**

Join the e-session: Seminar will be conducted through online platform using Zoom.

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## ORGANIZING COMMITTEE

### Patrons

**Dr. Nitinkumar M. Pethani**  
Hon. Vice Chancellor,  
Saurashtra University, Rajkot

**Dr. Vijaybhai Deshani**  
Pro Vice Chancellor,  
Saurashtra University, Rajkot

### Convener

**Dr. Mihir Raval**  
Head of Department  
Department of Pharmaceutical  
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### Coordinator

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Asst. Professor  
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## ORGANIZING MEMBERS

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Dr. Krishna Koradia	Ms. Rajeshri Patel