



ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ  
UNIVERSITY OF MYSORE

## DEPARTMENT OF STUDIES IN ORGANIC CHEMISTRY

Manasagangotri Mysuru- 570 006



### Genesis

M.Sc., Programme in Organic Chemistry was started in 2007 to meet the demands in industry and institutions for specialized graduates. This programme was designed to motivate the students in Chemistry to become highly qualified research scientists. Prof. K.S. Rangappa, Former Vice-Chancellor of KSOU and UOM, Mysuru laid the foundation for the department and ably supported by Prof. G. Hemantha Kumar, Honourable Vice-Chancellor, UOM, Mysuru. Prof. K.M. Lokanath Rai served as the first Course Coordinator of this programme which was initially attached to the Department of Studies in Chemistry.

The full-fledged Department of Studies in Organic chemistry was started in July 2015 with Prof. S. Shashikanth as the first Chairperson (July 2015 to November 2018). In January 2020, under the Chairmanship of Dr. Basappa (December 2018 to July 2021), the department was shifted to a new independent building. Presently, the department has six distinguished faculty members engaged in teaching and research programmes. The multifaceted growth of the department is attributed to the dedication of Prof. D. Channegowda, Prof. Lokanath Rai, Prof. S. Shashikanth and Prof. Y. B. Basavaraju and Dr. K. Mantelingu.

Till date, 181 students have successfully graduated and are well placed in academic institutions and industries across the globe.

## Academic Programmes

Every year, about 35 students are getting admitted to the four Semesters two year M Sc. in Organic Chemistry degree course based on the marks obtained in the qualifying degree and entrance examinations. In the first and second semesters, the students are offered the courses in all the four branches, viz Analytical, Inorganic, Organic, and Physical chemistry. In the third and fourth semesters, rigorous and intensive trainings are given in both theory and practical in different topics of organic chemistry along with the dissertation work, which is required for the award of M.Sc. Degree in Organic Chemistry.

**In the department, the following courses are offered;**

### First Semester :

Inorganic Chemistry - I : - Stereochemistry and Reaction Mechanism

Physical Chemistry - I : - Chemical Spectroscopy, Carbohydrates, Peptides & Nucleic Acids, Lipids, Anthocyanins & Porphyrins

### Second Semester :

Inorganic Chemistry - II :- Reagents in Organic Synthesis

Physical Chemistry - II :- Advanced Separation Techniques, Natural Products, Industrial Chemicals.

### Third Semester :

**Synthetic Organic Chemistry** :- Bonding, Photochemistry and Pericyclic Reaction , Green Chemistry, Molecular Rearrangements and Heterocyclic Chemistry, Dyes, Insecticides & Polymer Chemistry, Enzymes Functions and Their Kinetics, Applications of Synthetic Products Natural and Synthetic Products,

### Fourth Semester :

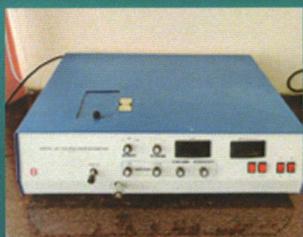
Organo-metallic & Organo-nonmetallic Compounds, Advanced Medicinal Chemistry, Dissertation work: Thesis and presentation

**Research Projects** : Funding Agency & Duration of the Project

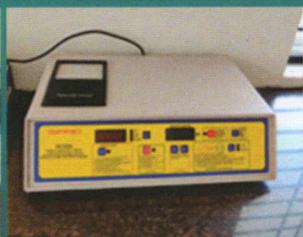
:- DBT, India, 2019-2022. :- VGST, Karnataka, 2019-2022. :- DST-Fastrack, MRP, 2014-2017.

:- VGST K-FIST (L1), Karnataka, 2019-2020, DBT-GLUE Grant 2019-22.

**Thrust Areas of Research:** Bioactive Molecules and Drug Delivery, Catalysis, Material Science, Supramolecular Chemistry, Bio-organic & Cancer Biology, Synthetic Organic Chemistry, Peptide and Peptidomimetics Chemistry, Total Synthesis of Natural Products and Green Chemistry.



UV-Visible  
Spectro- photometer



Rotary Evaporator



Fume Hood



pH Meter

## Infrastructure

- UV-Visible spectrophotometer
- Conductometer
- pH meter
- Potentiometer
- Rotary evaporator
- Fume hood
- Bio-safety cabinet
- Western blot instrument
- Oven for cell biology

## Research Output

PhD guided 15

## Publications

National Journals 3

International Journals 114

Patents 3

(Any other)

## Research Collaboration

**Prof. Paris Georghiou**, Memorial University of Newfoundland, St. Johns, Canada.

**Prof. Lokman Torun**, Yildiz Technical University, Istanbul, Turkey.

**Prof. TapusKundu**, CDRI, Luknow, India.

**Prof S. C. Raghavan**, Department of Biochemistry, IISc, Bangalore.

**Prof E. N. Prabhakaran**, Department of Organic chemistry, IISc, Bangalore.

**Prof. Daniel Seidel**, Department of Chemistry and Chemical

Biology, Rutgers, The State University of New Jersey, Piscataway, New Jersey 08854, United States.

**Dr.Gautam Sethi**, Department of Pharmacology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore.

**Dr.Alan Prem Kumar**, Department of Pharmacology, Cancer Science Institute of Singapore, National University of Singapore.

**Dr. Peter E. Lobie**, Tsinghua-Berkeley Shenzhen Institute, Tsinghua University, China.

**Dr Andreas Bender**, Reader at the Centre for Molecular Science Informatics, University of Cambridge.

**Dr.Venki Ramakrishnan**, MRC Laboratory of Molecular Biology, Cambridge, United Kingdom.

**Dr. Jong Hyun Lee**, Department of Science in Korean Medicine, College of Korean Medicine, Kyung Hee University, Seoul, Republic of Korea.

**Dr.Israel Vlodavsky**, Department of Radiation and Clinical Oncology, Hadassah University Hospital, Jerusalem, Israel 91120.

## Organic Chemistry lecture series

1. Organic Chemistry Lecture Series. 17th March 2021.
2. Chemical Society inauguration Lecture Series 30th March 2021.

## Webinars Conducted

1. Software Solutions for Routine R&D, Virtual activities & Knowledge Management, jointly Organized by University of Mysore and ACD / Labs on 15th September, 2020.
2. Computer Assisted New Chemical Structure Elucidation, jointly Organized by University of Mysore and ACD Labs on 21st September, 2020.
3. Anton Paar Solution for Microwave Synthesis, Jointly Organized by University of Mysore and Anton-Paar India Ltd on 29th September, 2020.



ACD Labs Webinars



Chemical Society Lecture Series

## Faculty Profile

### 1. Dr K. Mantelingu, Ph.D, Associate Professor



**Specialisation** : Organic Chemistry, Medicinal Chemistry.

**Awards** : VGST Best Research Publication Award (2017), GOK, Karnataka

\*Sir C. V. Raman Young Scientist Award (2015) from KSCST, Karnataka, \*UGC-Raman Postdoctoral Fellowship award 2013, \* Merck Millipore India Innovation, Award 2012 (Cash prize 7.5 Lakhs), \*Young Research Fellowship, Ministry of European Research (MER), Italy 2007-2008, \*Most Cited Paper 2006-2009 Award, Elsevier Ltd. UK),

**Publications** : 110, Patents: 4, Successfully guided: 12 Ph.D students

### 2. Dr.Basappa, Ph.D., Assistant Professor



**Specialisation** : Organic Chemistry, Cancer biology.

**Awards** : \* Prof R. C. Shah Memorial Lecture Award-2018. \*Sir CV Raman Young Scientist Award-2012,

\*Award for Research Publication, VGST, Karnataka, India-2012, Wrangler-DC Pavate Fellowship Award-2013. \*Most Cited Paper 2006-2009 Award (Bioorg& Med Chem, Elsevier Ltd). \*Most Cited Paper 2003-2006 Award (Bioorg& Med Chem, Elsevier Ltd).

**Publications** : 138, Patents: 8, successfully guided: 7 Ph.D students

### 3. Dr. K. H. Narasimhamurthy, Ph.D., Assistant Professor



**Specialisation** : Bio-organic, Analytical and Medicinal Chemistry,

**Publication** : 17 Dissertation guided: 30 M.Sc students

### 4. Dr. D.M. Gurudatt, Ph.D., Assistant Professor



**Specialisation** : Organic Chemistry, Corrosion Science.

**Publications** : 17 Dissertation guided: 35M.Sc students

### 5. Dr. T. R. Swaroop, Ph.D., Assistant Professor



**Specialisation** : Organic Chemistry and Medicinal Chemistry.

**Awards** : \*Shastri Research Student Fellowship, 2017 , \*Young Researcher Award - 2020 from Institute of Scholars, India, and I CAN Foundation, India.

**Publications**: 59, Dissertation guided: 30 M.Sc students

### 6. Dr. Shama Tumminakatti, Ph.D., Assistant Professor



**Specialisation** : Organic Chemistry, Peptide and Peptidomimetics Chemistry.

**Publications** : 5 Dissertation guided: 30 MSc students

### 7. Dr. M.S.Vijaya Kumar, Ph.D, (Japan),



Ramanujan Faculty Fellow and visiting faculty fellow

**Specialisation** : Inorganic Chemistry, Materials Chemistry and Microgravity Sciences

**Publications** : 47 \*Awards: Ramanujan Fellowship, SERB-DST, India (2016), Tufts-NASA Postdoctoral fellowship, USA (2014), JSPS Fellowship, Japan (2012), JAXA Research Associate Fellowship, Japan (2009), MEXT Scholarship, Japan (2005), AIEJ Scholarship, Japan (2004). Dissertation guided: 15 students

**The Teaching Programme is supported by two Guest Faculty.**

Contact :

**Chairperson**

DOS in Organic Chemistry

Manasagangothri, Mysore-06

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