





Commissioner of Collegiate Education, T.S. Hyderabad

### National Science Day Celebrations - 2022

RUSA, NCSTC, DST (GOI) & TSCOST Sponsored

A two day National Seminar on "Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022)

25th & 26th FEBRUARY 2022







### **DEPARTMENT OF CHEMISTRY**

SR & BGNR Govt. Arts & Science College (Autonomous) Khammam - 507 002.

Telangana, India

( Reaccredited at B++ by NAAC)

#### **BRIEF REPORT ON**





#### **RUSA & TSCHE Sponsored**

### Two day National Seminar on "EMERGING TRENDS IN CHEMICAL AND MATERIALS SCIENCE RESEARCH"

### (ETCMSR-2022)

On the occasion of "National Science Day Celebrations-2022"

25<sup>Th</sup> & 26 <sup>Th</sup> FEBRUARY 2022

Supported and Catalysed by
Telangana State Council Of Science & Technology
(TSCOST)

#### **Organized by**

DEPARTMENT OF CHEMISTRY

SR&BGNR. Govt. Arts & Science College (Autonomous),

Khammam

(Re-accreditated at 'B++, by NAAC)

Dr. P. Ramesh Dr. V. Shanti Kumar Dr. M. Subramanyam Dr. Mohd. Zakirullah

Convener Co-convener Organising Secretary Chairman & Principal





#### Two day National Seminar on

#### "Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022)

On the occasion of "National Science Day Celebrations-2022" 25<sup>Th</sup> & 26 <sup>Th</sup> February, 2022

# Organized by DEPARTMENT OF CHEMISTRY SR&BGNR. Govt. Arts & Science College (Autonomous), Khammam (Re-accreditated at 'B+++' by NAAC)

Seminar Chairman: Dr. Mohammad Zakirullah M.A., Ph.D.

**Convener** : Dr. Pulabala Ramesh

**Co-convener** : Dr. Vadiga Shanti Kumar

Organizing secretary : Dr. Madala Subramnyam

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- Dr. M. Kavitha, Vice-principal, UCW, Koti, OU, Hyderabad
- Dr. P. Sunitha Manjari, Dept. Of Chemistry, UCS, OU, Hyderabad
- Dr. P. Someswar, Dept. Of Chemistry, OU, Hyderabad
- Dr. Eeshwaraiah Begari, School of Applied Material Science,

Central University of Gujarat, Gandhinagar, Gujarat.

Dr. Vamshi Krishna Muppidi, CEO, Crystal Morphyx Technologies Pvt. Ltd., Hyderabad

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1.	Dr. Vadiga Shanti Kumar	Asst. Prof. of Chemistry
2.	Dr. Madala Subramnyam	Asst. Prof. of Chemistry
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4.	Dr.Ch. Srinivasulu	Asst. Prof. of Zoology
5.	Dr. P. Sarveswara Rao	Asst. Prof. of Commerce

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4.	Dr. C.V. Muralidhar	Asst. Prof. of Economics
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1.	M. Balakrishna	Asst. Prof. of Chemistry
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5.	G. Sudharani	Lecturer in Comp. Sc.(G)

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5.	Smt. M. Meghamala	Asst. Prof. of Telugu
6.	Smt. K. Usha Payani	Lecturer in Comp. Sc.(G)

#### 5. ACCOMMODATION & TRANSPORT (HOSPITALITY):

1.	B.Srinivas	Asst. Prof. of Chemistry
2.	B. Ravikumar	Asst. Prof. of Physics
3.	G. Surendra reddy	Asst. Prof. of Botany
4.	M. Ravindra Reddy	Asst. Prof. of History
5.	S. Ramesh	Asst. Prof. of Commerce

#### 6. HIGH TEA, LUNCH AND CATERING:

1.	B. Bhadru	Asst. Prof. of Chemistry
2.	Y. Ravindra Reddy	Asst. Prof. of Physics
3.	G. Srinivasa Kumar	Asst. Prof. of Zoology
4.	N. V. B. Sharma	Asst. Prof. of English
5.	D. Venkata Ramana	Asst. Prof. of Commerce

#### 7. REPORT WRITING -PRESS, PUBLICITY:

1.	Dr. J. Ramesh	Asst. Prof. of Telugu
2.	Dr. M. Venkata Ramana	Lecturer in Telugu (C)
3.	Smt. S. Anjani	Asst. Prof. of English
4.	Smt. Anitha Kumari	Asst. Prof. of Microbiology
5.	N. Venkanna	Asst. Prof. of Economics

#### 8. CERTIFICATES AND MEMENTOES:

1.	Dr. V. Shanti Kumar	Asst. Prof. of Chemistry
2.	Smt. G. Varalaxmi	Asst. Prof. of English
3.	Smt. M. Laxmi	Asst. Prof. of Physics
4.	B. Kondala Rao	Asst. Prof. of Lib. Science
5.	B. Venkateswara Rao	Asst. Prof. of Mathematics

#### **About the Institution**

Sri Rama and Bhaktha Gentela Narayana Rao Govt. Arts & Science College, Khammam was established in the year 1956 under private management initially. The then Honorable Chief Minister Sri Boorgula Rama Krishna Rao and the then District Collector of Khammam Sri G.V. Butt, took the initiative for its establishment along with a committee formed with the elite of the town. The primary objective was to provide higher education to the students of the marginalized rural sections and Tribal community of Khammam District. The College was named after the Chief Donor, Sri Rama and Bhaktha Gentela Narayana Rao. The College was taken over by the state government on 1-09-1959 and it acquired permanent affiliation to the Osmania University in 1972. Eventually the affiliation is transferred to the Kakatiya University, Warangal.

#### **About the Department**

**Department of Chemistry** is one of the oldest departments in this college. It was started along with establishment of SR&BGNR. Govt. Arts & Science college (A) in 1956. The department offering two years M.Sc., Chemistry (Post Graduation) and three years B.Sc., Physical Sciences and Life Sciences (Under Graduation) courses to the student community. It consists of four big well equipped laboratories, one Research Laboratory and eight eminent faculty members. The Under Graduate and Post Graduate curriculum contains Drug chemistry, Spectroscopy, Green chemistry, polymer chemistry, Separation techniques (i.e., Solvent extraction, chromatography), Heterocyclic chemistry, Natural products chemistry, stereochemistry, surface chemistry, Organometallic compounds, Analytical chemistry, Bioinorganic chemistry, photochemistry, Nanomaterials, in such a way to compete in academic and industrial areas at national and international scenario. We are conducting extension lectures to the students on different topics by inviting eminent professors from various universities, scientists from various research institutions (OU, KU, NIT, IICT, NIPER, etc) and industrial personnel from various industries.

Conducting various activities like field trips, study projects, (**like State Level Jignasa Projects Student Study Projects**), visiting industries, research institutes like IICT, NIT, NIPER etc, to impart knowledge and exposure on industrial knowledge among the students. We are encouraging the students to participate in workshops, seminars, conferences, symposiums, conducted by various institutions and organizations. The department faculty is engaged in various innovative projects funded by UGC. Conducting this seminar will helps the student community and the society to interact with the leading academics, scientists, researchers, industry personnel to exchange and share their knowledge and research results about all aspects of health and Environmental protection through lectures and presentations. During this seminar, it is expected that challenges encountered and the solutions to be adopted in sustainable development and Human health and environmental protection would be discussed.

#### Theme of the Seminar

Chemistry has provided the backbone in understanding the structure, organization and functions of living matter. The ability of plants to derive energy from sunlight and animals and humans to derive energy begins with chemistry and the principles of thermodynamics and basic of food itself are made of chemical and biological structures-Amino acids, sugars, lipids, Nucleotides, Vitamins, minerals and hormones.

Chemists and the chemical sciences have been integral to the development of modern medicine from diagnostics to drugs and the creation of the Pharmaceutical industry. The result has been a steady improvement in our health as life expectancy over the past century. Numerous challenges to human health still remain. Deadly infectious diseases including Malaria, Cholera and Tuberculosis may have been largely conquered in high income regions of the world but remain a major threat in poorer regions such as Africa. Even in richer nations infectious diseases remain a constant threat, the swine flu pandemic in 2009, Novel COVID-19 outbreak in 2020 and the dramatic increase of antibiotic resistance has made clear.

Modern health systems are struggling to cope with the demand for novel and more effective vaccines, antibiotics, as pathogens develop resistance to existing treatments. There is an urgent need for new drugs to fight multi-resistant infectious agents as our present vaccines, antibiotics become ineffective due to global misuse in medicine and the food industry.

Corona virus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Anyone can get sick with COVID-19 and become seriously ill or die at any age.

The best way to prevent and slow down transmission is to be well informed about the disease and how the virus spreads. Protect yourself and others from infection by staying at least 1 metre apart from others, wearing a properly fitted mask, and washing your hands or using an alcohol-based rub frequently. Get vaccinated when it's your turn and follow local guidance. In the treatment of COVID-19 various drugs like Azithromycin, Doxycycline, Favifirvir, Remedesivir, Bavesuzumab, Tocilizumabplays vital role. Invention of Covaxin, Covishield, Sputhnik, Pfizer covid-19 vaccines are controlling the spread of corona virus in the entire world.

Non-infectious diseases such as cardiovascular disease, cancer, diabetes and Alzheimer's disease are becoming more prevalent. Millions of people are dying worldwide every year, which are major causes for death. Non-infectious diseases are caused by combined genetic and environmental factors, and cannot be cured, only controlled by current drugs. It has been predicted that, by 2030, non-infectious diseases will account for 69% of all deaths worldwide. This represents a significant challenge for modern science. In this connection it is the time to invent more efficient drugs to prevent, cure and control the non-infectious diseases. Developing innovative modes of drug delivery and new approaches to treat diseases, including personalized medicines, regenerative medicine and improved biological therapeutics are the need of the hour.

There is a growing need for public awareness about the environmental issues and for effective implementation of environmental regulations. Further, the pace of development of environmental science programs is not adequate. This has resulted in a gap in knowledge and environmental regulations between developed and developing countries. There is thus, a need for continuous education about human health and environment which needs a forum for exchange of ideas and knowledge. It is important that the student community need to participate in such forums.

Finally, it's not only a question of what we can synthesize, but also how we do it. Since human growth and economic pressures are now forcing the chemical community to search for more efficient way to perform chemical transformations. Developing new route for Eco-friendly reactions i.e., **GREEN CHEMISTRY or GREEN SYNTHESIS** and their use in the chemicals, drugs, medicines etc, synthesis is keenly noticeable in all industrial countries since it reduces the reaction steps, selective towards target compounds with cheaper price. Hence "Better Chemistry-Better Human health-Better Environment".

Therefore, the proposed National seminar on "Emerging Trends in Chemical andMaterials Science Research"-(ETCMSR-2022) aims to bring together leading academics, scientists, researchers and students along with industry personnel to exchange and share their knowledge and research results about all aspects of health and Environmental protection through lectures and presentations. During this seminar, it is expected that challenges encountered and the solutions to be adopted in sustainable development and Human health and environmental protection would be discussed.

#### **Expected outcome**

Conducting this seminar will helps the student community and the society of this rural area to interact with the leading academics, scientists, researchers, industry personnel to exchange and share their knowledge and research results about all aspects of health and Environmental protection through lectures and presentations. During this seminar, it is expected that challenges encountered and the solutions to be adopted in sustainable development and Human health and environmental protection would be discussed.

#### A Brief Report on the Outcome of the Seminar

#### "Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022).

On the occasion of the "National Science Day-2022 Celebrations", Dept. of Chemistry, SR&BGNR. Govt. Arts & Science College (Autonomous), Khammam organized a two-day National Seminar on "Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022) on 25<sup>th</sup> & 26<sup>th</sup> February, 2022.

The programme was inaugurated by paying rich tributes to the science wizard Sir C.V. Raman the first Science Nobel Laureate of India. The days was commemorated the discovery of Raman Effect using the available simple optical instruments on 28<sup>th</sup> February, 1928. Of late the Raman effect is used to analyze a wide range of materials, including gases, liquids, and solids. The Raman spectroscopy can analyze highly complex materials such as biological organisms and human tissue.

The Seminar provided an excellent learning platform to the enthusiastic scholars from various institutions, universities, faculty members and rural students in and around Khammam district, to interact with researchers and Professors of eminence of reputed institutes like CSIR-IICT-Hyderabad, IITM, NIT-Warangal, NIPER-Hyderabad, Central University of Gujarat-Gandhinagar, Osmania University, Krishna University, Kakatiya University, Yogi Vemana University, Vignan's VFSTR, Guntur. This National Seminar is the first national level programme, organised under the auspices of the Department of Chemistry ever since the establishment of this institution. It paved way to the students of Khammam district to have good exposure, interaction and scientific temperament. More so ever by organizing this sort of activity, the institute was able to draw the attention of the philanthropists who helped in the development of the college and there by encouraged the students very well. I am pleased to underline the important highlights:

1. The interaction with the reputed Scientists, Professors, Researchers, Entrepreneurs, Industrialists and technologists enhanced their skills, knowledge, and evinced research interests among students and also faculty of Khammam district.

- 2. Students and faculty learnt the synthesis of efficient drug to cure and control the non-infectious and infectious diseases by developing innovative methods of drug delivery and new approaches to treating diseases.
- 3. The influence of Nanotechnology on Traditional Medicine was debited. The combination of nanotechnology with traditional herbal medicine may provide a useful tool in designing future herbal medicine with improved bioavailability profile and less toxicity.
- 4. Diversity Oriented Synthetic Methodologies for the Molecules of Biological Interest were debited.
- 5. Development of new Methodologies using Bismuth (III) and Iron (III) salts as green catalysts were also presented and explained thoroughly.
- 6. Molecular Hybridization Approach: Accelerating the Design of New Anticancer Agents in Drug Discovery was discussed.
- 7. Development of a rapid and Cost-Effective and Feasible Method for the Evaluation of Vitamin D Deficiency Using Advanced Mass Spectrometry Based Methods was highlighted.
- 8. Design and Synthesis of Spiro heterocyclics as Potent Anticancer and Antitubercular Agents, and Temperature and Co-ordination Dependent Superhydrophobic MOFs for Gas Separation and Oil Spills Cleanup Applications were explained and discussed at length.
- 9. The synthesis, structures, characterizations, properties and applications those novel SPCPs were discussed.
- 10. Advancement of Nanomedicine in Cancer Therapy was presented minutely.
- 11. Design and Synthesis of some Novel Heterocyclic Compounds and their Biological Evaluation were explained in detail. To have first hand information.
- 12. Synthetic Strategy The Disconnection Approach was explained very well.
- 13. The organic Materials based on Hetero Polycyclic Aromatic Hydrocarbons for Organic Thin-Film Transistors Applications were discussed.

In every session of the programme, there is a huge response from delegates, participants researchers and students. Every session was concluded with discussions and deliberations with enthusiasm from the invitees and the audience. PG and UG Science students were explored recent developments in the science, specially chemical and material sciences. Many researchers and students have interacted with the invitees on the topics and acquired the knowledge on specialized topics of present day research.

Finally, I wish to note that the Seminar inculcated a desire for research and scientific temper among the young minds. The seminar ignited the participant to organize and attend the seminars of this kind.

### SR&BGNR. Govt. Arts & Science College (Autonomous), Khammam RUSA, TSCHE & TSCOST sponsored Two Day National Seminar on

### "Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022) On the occasion of "National Science Day Celebrations-2022"

Schedule-Day-1 (25-06-2022)

SCHedule-Day-1 (23-00-2022)			
S.No.	Session & Time	Details Of Schedule/Programme/Lecture	Chair Person Of The Session
1.	10:00-10:30 AM	Inaugural Session: Welcome remarks by the convener, Lightening of the lamp followed by prayer song (Vandemataram)	Dr. Mohammad Zakirullah Principal
2.	10.30-11.10 AM.	Message by Chief Guest	SR&BGNR. Govt. Arts &
3.	11.10-11.30 AM	Felicitation to the Retired Lecturers of Dept of Chemistry, SR&BGNR. Govt. College (A), Khammam.  Felicitation to Guests by the Chairman and Release of the Souvenir of Seminar.	Science College (Autonomous), Khammam
4.	11.40-11.50 AM.	TEA BREAK	
5.	<u>SESSION –I</u> 11:50-1:00 PM	Key Note Lecture  "Influence of Nanotechnology on Traditional Medicine"  Dr. K. Suresh Babu  Senior Principal Scientist  Centre for Natural Products & Traditional Knowledge  CSIR-Indian Institute of Chemical Technology, Hyderabad- 500 007, India	Dr. P. Adavi Raju Asst. Prof of Chemistry & Principal (FAC), Govt. Degree College, Jogipet.
6.	1:00-2:00 PM	LUNCH BREAK	
7.	Session-II Invited Lecture-I 2:00-2:45 PM	"Synthetic Strategy – The Disconnection Approach" Prof. G. Brahmeshwari Head, Department of Chemistry, Kakatiya University, Warangal, 506009 India	Doef N. W. and Lone Dedder
8.	Session-II Invited Lecture-II 2:45-3:30 PM	"Development of a Rapid and Cost-Effective and Feasible Method for the Evaluation of Vitamin D Deficiency Using Advanced Mass Spectrometry Based Methods"  Dr. P. Muralidhar Reddy Department of Chemistry, University College of Science, Osmania University, Hyderabad, TS, India.	Prof. N. Vasudeva Reddy Department of Chemistry, Kakatiya University, Warangal
9.	3:30-3:40 PM	TEA BREAK	
10.	Session-III Invited Lecture-III 3:40-4:25PM	"Development of new Methodologies using Bismuth (III) and Iron (III) salts as green catalysts"  Dr. Eeshwaraiah Begari  School of Applied Material Sciences, Central University of Gujarat, Gandhinagar-382030, Gujarat, India	<b>Dr. G. Ramesh</b> Department of Chemistry,
11.	Session-III Invited Lecture-IV 4:25-5:10 PM	"Molecular Hybridization Approach: Accelerating the Design of New Anticancer Agents in Drug Discovery"  Dr. Nagula Shankaraiah  Department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research (NIPER), Hyderabad - 500 037, India.	University Arts & Science College, Subedari, Kakatiya University,Warangal

#### SR&BGNR. Govt. Arts & Science College (Autonomous), Khammam

RUSA, TSCHE & TSCOST sponsored Two Day National Seminar on "Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022)

On the occasion of "National Science Day Celebrations-2022" Schedule-Day-2 (26-06-2022)

S.No.	Session&Time	Details Of Schedule/Programme/Lecture	Chair Person Of The Session
1.	Session-I 10:00 -10:45 AM Invited Lecture-V	"Design and Synthesis of some Novel Heterocyclic Compounds and their Biological Evaluation" Dr. Jalapathi Pochampalli Department of Chemistry, Osmania University, Hyderabad, Telangana 500007, India	Dr. Vasam Srinivas Asst. Prof. of Chemistry,
2.	Session-I 10:45- 11:30 AM Invited Lecture-VI	"Organic Materials based on Hetero Polycyclic Aromatic Hydrocarbons for Organic Thin-Film Transistors Applications" Dr. Someshwar Pola Department of Chemistry, Osmania University, Hyderabad, Telangana 500007, India	Kakatiya Govt. College, Hanamkonda, Warangal.
3. 4.	11:30-11:40 PM  Session-II 11:40-12:25 N Invited Lecture-VII	"Design and Synthesis of Spiroheterocyclics as Potent Anticancer and Antitubercular Agents"  Dr. Srinivas Basavoju  Department of Chemistry, National Institute of Technology Warangal, Hanamkonda-506 004,  Telangana, India.	Dr. G. Ravi Kumar
5.	Session-II 12:25-1:10 PM Invited Lecture- VIII	"Design, Synthesis of Temperature and Co- ordination Dependent Superhydrophobic MOFs for Gas Separation and Oil Spills Cleanup Applications" Prof. Koya Prabhakara Rao Head of Chemistry Division, New Generation Materials Lab (NGML), Department of Science and Humanities, Vignan's Foundation for Science Technology and Research (VFSTR) (A deemed to be University), Vadlamudi, Guntur-522 213, Andhra Pradesh, India	Department of chemistry, Government Degree College, Husnabad, Telangana, India.
6.	1:10-2:00 PM	LUNCH BREAK	
7.	Session-III 2:00 -2:45 PM Key Note Lecture- II	"Diversity Oriented Synthetic Methodologies for the Molecules of Biological Interest"  Prof. Mandava V. Basaveswara Rao  Department of Chemistry, Krishna University,  Machilipatnam, A.P, India	Dr. Mallaram Aruna Department of Chemistry, Pingle Govt. College (W), Hanamakonda, Warangal
8.	<u>Session-IV</u> 2:45- 3:45 PM	POSTER SESSION	
9.	3:45-4:00 PM	TEA BREAK	
10.	<u>Session-V</u> 4:00-5:00PM	VALIDICTION	

#### Two Day National Seminar on "Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022)

#### Day-1, 25-02-2022 Session-I

#### Session Chair Person:-Dr. P. Adavi Raju

Asst. Prof of Chemistry & Principal (FAC), Govt. Degree College, Jogipet.

#### **Key –Note Lecture**

#### "Influence of Nanotechnology on Traditional Medicine" Dr. K. Suresh Babu

Senior Principal Scientist

Centre for Natural Products & Traditional Knowledge CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, India

#### **Session-II**

#### Session Chair Person: - Prof. N. Vasudeva Reddy

Department of Chemistry, Kakatiya University, Warangal

#### **Invited Lecture-I**

 $\hbox{``Synthetic Strategy--The Disconnection Approach''}\\$ 

Prof. G. Brahmeshwari

Head, Department of Chemistry, Kakatiya University, Warangal, 506009 India

#### **Invited Lecture-II**

"Development of a Rapid and Cost-Effective and Feasible Method for the Evaluation of Vitamin D Deficiency Using Advanced Mass Spectrometry Based Methods" Dr. P. Muralidhar Reddy

Department of Chemistry, University College of Science, Osmania University, Hyderabad, India.

#### **Paper Presenters**

- 1. Jay Prakash Soni Department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research (NIPER), Hyderabad-500 037, India
- 2. **Revathy Sundara Moorthy** Department of Chemistry, Osmania University, Hyderabad, Telangana, India.
- 3. **Bhargava Sai Allaka** Department of Chemistry, National Institute of Technology Warangal, Hanamkonda 506 004, Telangana, India
- 4. **Srujana muthadi** -Dept. of Chemistry, kakatiya University, Warangal.
- 5. **Dodda Bhargavi** New Generation Materials Lab (NGML), Department of Science and Humanities, Vignan's Foundation for Science Technology and Research (VFSTR) (Deemed to be University), Vadlamudi, Guntur-522 213, Andhra Pradesh, India.
- 6. **T. Ramesh**-Department of Chemistry, University College of Science, Osmania University, Hyderabad, TS, India
- 7. **Venkatesh Egurapu** Department of Chemistry, Kakatiya University, Warangal, 506009 India.

#### **Session-III**

#### Session Chair Person:- Dr. G. Ramesh,

Department of Chemistry,

University Arts & Science College, Subedari, Kakatiya University, Warangal

#### **Invited Lecture -III**

"Development of new Methodologies using Bismuth (III) and Iron (III) salts as green catalysts"

#### Dr. Eeshwaraiah Begari

School of Applied Material Sciences, Central University of Gujarat, Gandhinagar-382030, Gujarat, India

#### **Invited Lecture -IV**

"Molecular Hybridization Approach: Accelerating the Design of New Anticancer Agents in Drug Discovery"

#### Dr. Nagula Shankaraiah

Department of Medicinal Chemistry,
National Institute of Pharmaceutical Education and Research (NIPER),
Hyderabad - 500 037, India.

#### Paper presenters

- 8. **G. Dilip Kumar** Division of Natural Products Chemistry, CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, India.
- 9. **T. Satish** Department of Chemistry, University college of Science, Saifabad, Osmania University, Hyderabad –500 004, India.
- 10. **K. Kumar-** *Division of Natural Products Chemistry, CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, India.*
- 11. **K. Anjaneyulu** Department of Chemistry, S.R.R. Government Arts & Science College, Karimnagar-505001, Telangana, India
- 12. **Aruna Mallaram** Department of Chemistry, Pingle Government College (W), Hanamakonda, India 506 001
- 13. **Stephy ElzaJohn** Department of Pharmacology and Toxicology, National Institute of Pharmaceutical Education and Research (NIPER), Hyderabad-500 037, India.
- 14. **M. Balakrishna** Department of Chemistry, University College of Science, Osmania University, Hyderabad 500007, Telangana State, India.
- 15. **Muralimohan Gampa**-Department of Chemistry, School of Science, Gitam University, Rudraram, Hyderabad, Telangana 502329, India
- 16. **G. Bhavani** Department of Pharmacy, University College of Technology, Osmania University, Hyderabad, TS, India.
- 17. **M. Subramanyam** Department of Chemistry, SR & BGNR Govt. Arts & Science College (Autonomous), Khammam 507 002, Telangana, India.
- 18. **M. Subramanyam** Department of Chemistry, SR & BGNR Govt. Arts & Science College (Autonomous), Khammam 507 002, Telangana, India.
- 19. **Kasula Nagaraja** Polymer Biomaterial Design and Synthesis Laboratory, Department of Chemistry, Yogi Vemana University, Kadapa, Andhra Pradesh, India-516003.

#### Day-2, 26-02-2022

#### **Session-I**

#### Session Chair Person:- Dr. Vasam Srinivas

Asst. Professor of Chemistry, Kakatiya Govt. College, Hanamkonda, Warangal.

#### **Invited Lecture-V**

#### "Design and Synthesis of some Novel Heterocyclic Compounds and their Biological Evaluation"

#### Dr. Jalapathi Pochampalli

Department of Chemistry, Osmania University, Hyderabad, Telangana 500007, India

#### **Invited Lecture-VI**

"Organic Materials based on Hetero Polycyclic Aromatic Hydrocarbons for Organic Thin-Film Transistors Applications"

#### Dr. Someshwar Pola

Department of Chemistry, Osmania University, Hyderabad, Telangana 500007, India

#### **Paper presenters:**

- 20. **Mahesh Yallaboina** Department of Chemistry, SR&BGNR. Government College (Autonomous), Khammam-507 002, Telangana, India.
- 21. **Anjum Aara-** Department of Chemistry, Government Degree College, Thorrur, Telangana, India.
- 22. **Bhadru Bhukya** -Department of Chemistry, SR&BGNR. Government College (A), Khammam-507 002, India
- 22. **Sampath Bitla** *Department of Chemistry, University of Technology, Osmania University, Hyderabad, T.S., India.*
- 23. Veeranna Guguloth J.V.R. Govt. College, Sathupally, Telangana, India.
- 24. **Mallesh Magini** -Department of Chemistry, University of Technology, Osmania University, Hyderabad, T.S., India
- 25. **Himabindu Mekala** Department of Chemistry, S.R.R. Government Arts & Science College, Karimnagar, 505001, Telangana, India
- 26. **Mohd Ifran Mustaqeem** Department of Chemistry, Chaitanya deemed to be University, Warangal, Telangana, India-506001
- 27. **Kavati Shireesha** *Department of Chemistry, Chaitanya (Deemed to be University), Hanamkonda, Telangana, India.*

#### <u>Session-II</u> Session Chair Person

#### Dr. Gollapudi Ravi Kumar

Department of chemistry,

Government Degree College, Husnabad, Telangana, India.

#### **Invited Lecture-VII**

"Design and Synthesis of Spiroheterocyclics as Potent Anticancer and Antitubercular Agents"

Dr. Srinivas Basavoju

Department of Chemistry, National Institute of Technology Warangal, Hanamkonda-506 004, Telangana, India.

#### **Invited Lecture-VIII**

"Design, Synthesis of Temperature and Co-ordination Dependent Superhydrophobic MOFs for Gas Separation and Oil Spills Cleanup Applications"

Prof. Koya Prabhakara Rao

Head of Chemistry Division,

New Generation Materials Lab (NGML),

Department of Science and Humanities,

Vignan's Foundation for Science Technology and Research (VFSTR) (A deemed to be University),

Vadlamudi, Guntur-522 213, Andhra Pradesh, India

#### Paper presenters

- 28. **Varukolu Mahipal-** Department of Chemistry, Osmania University, Hyderabad, Telangana, India 500 007.
- 29. **B. Adilakshmi** Polymer Biomaterial Design and Synthesis Laboratory, Department of Chemistry, Yogi Vemana University, Kadapa, Andhra Pradesh, India-516003
- 30. **Ambala Nageswara Rao** Anurag Engineering College, Ananthagiri, Kodad, Suryapet Dist., Telangana, India
- 31. **Dharmender Pallerla** Department of Chemistry, Kakatiya University, Warangal 506 009 Telangana, India
- 32. **V. Sunitha** Telangana Social Welfare Residential Degree College for Women, Siddipet, Telangana, India-506223
- 33. **J. Anil Kumar** -Department of Botany, Government Degree College, Manuguru, Telangana, India
- 34. **Kiran Kumar Murahari** Research Centre, Department of Chemistry, CKM Arts & Science College, Warangal-506006, Telangana, India

#### **Session-III**

#### Session Chair Person: - Dr. Mallaram Aruna

Department of Chemistry, Pingle Government College (W), Hanamakonda, Warangal

#### **Key –Note Lecture -II**

#### "Diversity Oriented Synthetic Methodologies for the Molecules of Biological Interest" Prof. Mandava V. Basaveswara Rao

Department of Chemistry, Krishna University, Machilipatnam, A.P, India

#### Paper presenters

- 35. **Srinivas Kunta** Department of chemistry, kakatiya university, Warangal-506009
- 36. **Udayalaxmi Salluri** Research Centre, Department of Chemistry, CKM Arts & Science College, Warangal-506006, Telangana, India
- 37. **B. Ramesh** -Department of Chemistry, Kakatiya Govt. College, Hanamkonda
- 38. S. Kalyani Department of Chemistry, Mahatma Gandhi University, Nalgonda-508254, India.
- 39. Sai Teja Kothagattu- Department of Chemistry, Chaitanya deemed to be university, Warangal, India.
- 40. **G. Ramesh** Department of chemistry, kakatiya university, Warangal-506009
- 41. **Anna Reddy Ambati** Research Centre, Department of Chemistry, CKM Arts & Science College, Warangal-506006, Telangana, India.
- 42. **Sateesh Amudala** Department of Chemistry and Pharmaceutical sciences, Mahatma Gandhi University, Nalgonda-508254, India

#### **Session-IV**

#### VALIDICTION

Session Chair Person: - Dr. Mohd. Zakirullah

Chairman-ETCMSR-2022 &

Principal, SR&BGNR. Govt. Arts & Science College (Autonomous), Khammam

Two Day National Seminar on

"Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022)

on the occasion of "National Science Day-2022 Celebrations"

#### **Inaugural Session**



Jyothiprajwalan by the Chairman, Invitees & Guests.



Opening Remarks by the Chairman & Principal, Dr. Mohd. Zakirullah



Paying Tribute to the Indian Science Wizard, Sir. C.V.Raman.



Release of Souvenir of Two Day National Seminar on "Emerging Trends in Chemical and Materials Science Research" ETCMSR-2022

#### **Two Day National Seminar on**

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**Key –Note Lecture-I** 

Dr. K. Suresh Babu

#### "Influence of Nanotechnology on Traditional Medicine"

Senior Principal Scientist, Centre for Natural Products & Traditional Knowledge, CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, India





#### **Influence of Nanotechnology on Traditional Medicine**

#### Dr. K. Suresh Babu

Senior Principal Scientist

#### Centre for Natural Products & Traditional Knowledge

CSIR-Indian Institute of Chemical Technology, Hyderabad-500 007, India

Email: <a href="mailto:suresh@iict.res.in">suresh@iict.res.in</a>; Tel: +91-9963999220.

#### **Abstract**

Concurrent with human civilization, plants have been their true companions as source of food and medicine. These plants have contributed significantly in discovery, design and development of several modern medicines. Recent move of society towards nature for the treatment of various diseases where there is no satisfactory cure in modern medicine has diverted the attention of natural/medicinal chemists and biologists to unravel their chemical characteristics and biological activities together in order to define their therapeutic potential in the light of modern pathobiological understandings. This move has led collectively to rediscover, design and refine the therapeutic application of medicinal plants.

During last eight years, we have studied several medicinal plants guided by *in vitro* based bioassays to delineate the chemistry of medicinal plants responsible for biological activities. This effort has led to identify several potent multiple active medicinal plants, their active fractions and synergistic molecular compositions. We have identified particularly, several free radical scavengers, cytotoxic and  $\alpha$ -glucosidase inhibitory principles present in substantial yield in Indian Medicinal Plants. Presence of multiple active phytochemicals in rich concentrations in some of the medicinal plants therefore offers exciting opportunity for development of novel therapeutics and also provides scientific justification for their use in traditional medicines. In addition, some of the compounds isolated from these plants also displayed potent insecticidal activities. Therefore, biologically activity based chemical characterization of these medicinal plants may provide scientific explanation for their use in traditional medicines and also redesign and develop preparations for novel therapeutic applications. The opportunities in the development of this therapeutics from natural products are divided into four topics. Each topic will be exemplified with suitable examples.

Nanotechnology is an interdisciplinary research field developed with an amalgamation of chemistry, engineering, biology, and medicine, and has various useful applications in NDDS, and development of novel treatments.

Nanoparticles are the end products of a wide variety of physical, chemical and biological processes some of which are novel and radically different, others of which are quite common place. Nanoparticles may be defined as submicron (<1µm) colloidal systems, generally, but not necessarily, made of polymers (biodegradable or not). Herbal drug in the nano carriers will increase its potential for treatment of different chronic diseases and health benefits. Treatment of chronic diseases like cancer using the targeted drug delivery nanoparticles is the latest achievement in the pharmaceutical drug delivery field. For instance, PLGA nanoparticles loaded with camptothecin (a cytotoxic alkaloid isolated from *Camptotheca acuminate*) and conjugated with antibodies against colorectal tumour cells. It was observed that the uptake of antibodynanoparticles was increased in the cell compared to the nanoparticles without the antibody and increased cytotoxicity of camptothecin.

The combination of nanotechnology with traditional herbal medicine may provide a useful tool in designing future herbal medicine with improved bioavailability profile and less toxicity. Now a day's nanotechnology is rapidly expanding in the herbal industries include potentially field of medicines and cosmetics. Traditional Medicine will contribute to human health care in the 21st century. Still, there are many challenges to the safety and effective use of traditional medicine. But there is huge scope for nanotechnology based traditional medicines. It is long way to go.........

**Keywords:** Biological activities, traditional medicine, nanotechnology, targeted drug delivery.

#### Two Day National Seminar on

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#### **Invited Lecture-I**

#### Dr. P. Muralidhar Reddy

"Development of a Rapid and Cost-Effective and Feasible Method for the Evaluation of Vitamin D Deficiency Using Advanced Mass Spectrometry Based Methods"

Department of Chemistry, University College of Science, Osmania University, Hyderabad, TS, India.





### Development of a Rapid and Cost-Effective and Feasible Method for the Evaluation of Vitamin D Deficiency Using Advanced Mass Spectrometry Based Methods

Dr. P. Muralidhar Reddy<sup>1</sup>\* and Prof. Anren Hu<sup>2</sup>

<sup>1</sup>Department of Chemistry, University College of Science, Osmania University, Hyderabad, TS, India. <sup>2</sup>Department of Laboratory Medicine and Biotechnology, College of Medicine,

Tzu-Chi University, Hualien, Taiwan E-mail: pmdreddy@osmania.ac.in

#### **Abstract**

The change in lifestyle and work of the people has led to the emergence of new diseases and deficiencies over the world. One of the major deficiencies would be the vitamin D deficiency that may not sound too threatening, but has very great impact on the health and lives of people. The deficiency in turn causes many severe diseases and deficiencies such as rickets in children and osteomalacia, hypertension, myocardial infarction, Stroke, Diabetes, Atherosclerosis and cancer in adults. Moreover, the recent studies have greatly researched on the harmful impact of vitamin D deficiency is with the COVID -19 pandemic, where it has increased possibility of increasing the risk of lives in COVID patients. In Telangana especially in Hyderabad there are about 60-65 % of vitamin D deficit cases shooting up at orthopedics' clinic and moreover in rural areas the awareness over the requirement of Vitamin D is negligent along with ignoring mind set and cost issues for testing. More concerns over the children, senior citizens and women of Telangana is considered as the vitamin D deficiency can cause decreased calcium and phosphate absorption in turn causing bone related problems.

On viewing these problems, there comes the requirement of developing cost effective, sensitive and rapid testing methods for evaluating vitamin D concentrations for common people to afford without hesitation and can keep their health on-check. Hence the present study involves the gas chromatography coupled mass spectrometry with trimethylsilyl derivatization (TMS-GC-MS-MS) is the most suitable protocol for quantitative analyses of Vit-D3. Performance of method was evaluated and compared with LC-MS/MS and conventional immuno assay method. Method validation has been carried out with various blood samples. The limit of quantitation of TMS-GC-MS/MS method is 1.5 ng/ml with good linear correlation. Furthermore, the dietary intake and nutritional status of vegetarian and non-vegetarians were assessed by our validated method. As a result, this vitamin D nutrition survey demonstrates that most people have insufficient vitamin D. Our results can be used to develop dietary suggestions and monitor risk to improve health.

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#### **Two Day National Seminar on**

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#### **Invited Lecture-II**

Prof. G. Brahmeshwari

"Synthetic Strategy – The Disconnection Approach"

Head, Department of Chemistry, Kakatiya University, Warangal, 506009 India



**Synthetic Strategy – The Disconnection Approach** 

Prof. G. Brahmeshwari

Head, Department of Chemistry, Kakatiya University, Warangal, 506009 India

E-mail: gbrahmeshwari@gmail.com; Mobile: 9989835839

Chemists have two major goals, one is to unravel the secrets of nature-advancing horizons of knowledge and the other is to make human life as comfortable as possible. Industrial chemists synthesize pharmaceuticals, polymers (plastics) pesticides, dyestuffs, food colorings, perfumes, detergents and disinfectants. While research chemists synthesize natural products whose structure is uncertain, compounds for mechanistic investigations, possible intermediates in chemical and biological processes and even compounds which might themselves be useful for organic syntheses.

Before and during these syntheses chemist has to plan the work and how about to undertake. One has to draw possible routes to achieve success. The important analytical approach in organic synthesis is disconnection or synthon approach. We start with the molecule we want to make (the target molecule) and break it down by a series of disconnections into possible starting materials. At last we shall devise a route using different easily available starting materials.

#### Two Day National Seminar on

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#### **Invited Lecture-III**

#### Dr. Eeshwaraiah Begari

"Development of new Methodologies using Bismuth (III) and Iron (III) salts as green catalysts"

School of Applied Material Sciences, Central University of Gujarat, Gandhinagar-382030,

Gujarat, Indi



## Development of new Methodologies using Bismuth (III) and Iron (III) salts as green catalysts

#### Dr. Eeshwaraiah Begari

School of Applied Material Sciences, Central University of Gujarat, Gandhinagar-382030, Gujarat, India
E-mail: eeshwarb@cug.ac.in, eshwarncl@gmail.com

Our research is widely focused on Bismuth (III), Iron (III) salts catalyzed green reactions. A Lewis acid catalyzed regioselective C–C bond is constructed through  $\beta$ -addition of deconjugated butenolides with p-quinone methides in a 1,6-conjugate addition manner. Interestingly, Bismuth triflate lewis acid catalyzed vinylogous Mukaiyama–Michael reaction of silyloxyfurans with p-QMs proceeds selectively through  $\alpha$  or  $\gamma$  position exclusively. The reaction is mild with broad substrate scope, thus allowing easy access to a wide range of bis-arylated  $\alpha$ -/ $\beta$ -/ $\gamma$ -substituted butenolides.

The synthesis of nitrogen containing heterocycles is of particular interest in the pharmaceutical industry due to the range of biological activities exhibited by such compounds. Their synthesis using multicomponent reactions saves steps, and minimizes waste generation. The bismuth(III) chloride multicomponent synthesis of a series of hexahydroimidazo[1, 2-a]pyridines is a green protocol. Bismuth (III) compounds are especially attractive from a green chemistry perspective because they are remarkably nontoxic, non-corrosive and relatively inexpensive. The method avoids chromatography and an aqueous waste stream.

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**Two Day National Seminar on** 

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**Invited Lecture-IV** 

Dr. Nagula Shankaraiah

"Molecular Hybridization Approach:

Accelerating the Design of New Anticancer Agents in Drug Discovery"

Department of Medicinal Chemistry,

National Institute of Pharmaceutical Education and Research (NIPER), Hyderabad - 500 037, India.





### Molecular Hybridization Approach: Accelerating the Design of New Anticancer Agents in Drug Discovery

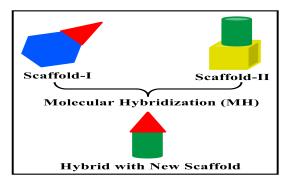
#### Dr. Nagula Shankaraiah

Department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research (NIPER), Hyderabad - 500 037, India.

E-mail.: shankar@niperhyd.ac.in

Cancer is a growing lead cause of mortality and accounts for the major morbidity worldwide. In the recent years, several approaches are being investigated to develop an effective cure, to curb the alarming increase in the number of cancer cases across the globe. The complex biological networks and heterogeneous nature of cancer displays a high degree of challenge at the tissue and cellular levels. Due to the proliferative nature of cancer cell and multi-drug resistance in cancer, 1 DNA becomes one of the most promising biological targets for developing anticancer agents. Hence, there is a need towards the exploration of nature inspired heterocycles and their derivatives to identify novel leads for cancer therapy. In cancer drug discovery, structural modifications and the fusion of pharmacophoric sub-units on these scaffolds aid the development of highly potent and selective hybrid molecules *via* molecular hybridization approach (**Figure 1**)<sup>2</sup>. It is a new concept in the drug design and development based on the combination of two different pharmacophoric moieties to produce a novel hybrid scaffold with improved affinity and efficacy, when compared to the parent drugs.

In continuation of our efforts in the design and synthesis of new chemical entities (NCEs) of anticancer agents, herein we combined the structural artifacts of several different bioactive heterocyclic scaffolds assembled as a new single hybrid. In this way, our research group have successfully generated a library of new compounds based on molecular hybridization approach by employing different heterocyclics such as isatin, 3-alkenyl oxindoles,  $\beta$ -carbolines, benzimidazoles, 1,2,3-triazoles/tetrazoles, podophyllotoxins, chalcones, pyrrolobenzodiazepines, thiazolidinediones, phenathrenes, etc., and tested their cytotoxicity on different human cancer cell lines by utilizing different *in vitro* assays. Some of the representative molecules have shown significant anticancer activity at nanomolar range in selected human cancer cell lines.



**Figure 1**. Molecular hybridization approach.

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#### Two Day National Seminar on

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#### **Invited Lecture-V**

#### Dr. Jalapathi Pochampalli

"Design and Synthesis of some Novel Heterocyclic Compounds and their Biological Evaluation"

Department of Chemistry, Osmania University, Hyderabad, Telangana 500007, India



#### Design and Synthesis of some Novel Heterocyclic Compounds and their Biological Evaluation

#### Dr. Jalapathi Pochampalli

Department of Chemistry, Osmania University, Hyderabad, Telangana 500007, India

E-mail ID: pochampallij@gmail.com

Heterocyclic chemistry constitutes an essential branch of organic chemistry. Heterocycles are widely known to display a range of bioactive properties which are widely utilized in the pharmaceutical and agricultural sectors. Heterocyclic compounds, especially nitrogen heterocycles, are the most important class of compounds in the pharmaceutical and agrochemical industries, with comprising around 60% of all drug substances.

The nitrogen containing heterocycles form a diverse class of organic molecules and were found to possess many types of biologically interesting activities including anti-bacterial, anti-viral, anti-fungal, anti-cancer, anti-tumor, anti-inflammatory, anti-hypertensive, anti-convulsant and anti-diabetic properties.

This study covers the synthesis characterization and anti-bacterial, anti-inflammatory anti-oxidant and cytotoxicity evaluation of some new heterocyclic molecules containing benzimidazole, piperazine, triazole nuclei.

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#### **Invited Lecture-VI**

Dr. Someshwar Pola

"Organic Materials based on Hetero Polycyclic Aromatic Hydrocarbons for Organic Thin-Film Transistors Applications"

Department of Chemistry, Osmania University, Hyderabad, Telangana 500007, India





# Organic Materials based on Hetero Polycyclic Aromatic Hydrocarbons for Organic Thin-Film Transistors Applications

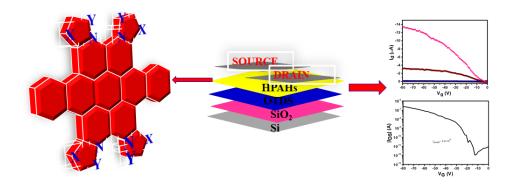
#### Dr. Someshwar Pola

Department of Chemistry, Osmania University, Hyderabad, Telangana 500007, India

E-mail: somesh.pola@osmania.ac.in

#### **Abstract**

The synthesis and characterization of a series of novel hetero polycyclic aromatic hydrocarbons (HPAHs) as a potential lead molecule in organic semiconductor devices with tetra-imidazolo or tetrapyrazolo benzo-fused coronene as the main framework are reported. Incorporation of hetero atoms into polycyclic aromatic hydrocarbons (PAHs) by Corey-Fuchs reaction followed by photochemical cyclisation using iodine has been described for carrier mobility and hole transport properties. The (TIC), synthesized coronenes. Tetraimidazocoronene Tetraimidazobenzocoronene (TIBC), Tetraimidazodibenzocoronene (TIDBC), Tetrapyrazolocoronene (TPC), Tetrapyrazolobenzocoronene (TPBC), and Tetrapyrazolodibenzocoronene (TPDBC), have good physicochemical properties and are supported with DFT/TDDFT studies. On an ODTS-SiO<sub>2</sub> substrate at room temperature, the reported compounds were utilized to fabricate organic thin-film transistors (OTFTs) and shownhole mobilities in the range of 0.21-0.71 cm<sup>2</sup>/Vs and with an on/off ratio of 10<sup>4</sup>.



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#### **Invited Lecture-VII**

#### Dr. Srinivas Basavoju

"Design and Synthesis of Spiroheterocyclics as Potent Anticancer and Antitubercular Agents"

Department of Chemistry, National Institute of Technology Warangal, Hanamkonda-506 004,

Telangana, India.



# Design and Synthesis of Spiroheterocyclics as Potent Anticancer and Antitubercular Agents

#### Dr. Srinivas Basavoju

Department of Chemistry, National Institute of Technology Warangal, Hanamkonda-506 004, Telangana, India.

Corresponding E-mail: <u>basavojusrinivas@nitw.ac.in</u> Mobile: (+91) 9703351571.

#### **Abstract**

The essential need for the potent anticancer and antitubercular agents with high selectivity and safety profile prompted us to synthesize a new series of spiroheterocyclics, spiropyrrolizidines. These compounds were synthesized by one-pot multicomponent [3+2] cycloaddition reaction under reflux/ultrasonication. Further, *invitro* anticancer and antitubercular activities were evaluated against human lung carcinoma (A549) and human cervical (HeLa S3) cancer cell lines and *Mycobacterium tuberculosis* H37Rv respectively.

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#### **Invited Lecture-VIII**

#### Prof. Koya Prabhakara Rao

"Design, Synthesis of Temperature and Co-ordination Dependent Superhydrophobic MOFs for Gas Separation and Oil Spills Cleanup Applications"

Head of Chemistry Division, New Generation Materials Lab (NGML), Department of Science and Humanities, Vignan's Foundation for Science Technology and Research (VFSTR) (A deemed to be University), Vadlamudi, Guntur-522 213, Andhra Pradesh, India





# Design, Synthesis of Temperature and Co-ordination Dependent Superhydrophobic MOFs for Gas Separation and Oil Spills Cleanup Applications

#### Prof. Koya Prabhakara Rao

Head of Chemistry Division, New Generation Materials Lab (NGML),

Department of Science and Humanities,

Vignan's Foundation for Science Technology and Research (VFSTR) (A deemed to be University),
Vadlamudi, Guntur-522 213, Andhra Pradesh, India

E-mail: drkpr\_sh@vignan.ac.in; kprao2005@gmail.com

Porous coordination polymers (**PCPs**), which also known as metal-organic frameworks (**MOFs**) are emerged as potential materials of the decade, particularly forgas storage, separation, catalysts and sensors etc. However, PCPs existing in the literature were mostly instability with respect to moisture and bulk water. Besides these traditional **PCPs**, we have been designed and synthesized an organic rich low density, BTMBH<sub>3</sub>=1,3,5-benzenetris(*m*-benzoic acid)) ligand. Using this novel ligand we achieved first time a series<sup>1-3</sup> of six new superhydrophobic porous coordination polymers (**SPCPs**), with molecular formulae, **Zn**<sub>4</sub>(μ<sub>3</sub>-**OH**)<sub>2</sub>(**BTMB**)<sub>2</sub>**Guest** (**1**),**Zn**<sub>2</sub>**M**<sub>2</sub>(μ<sub>3</sub>-**OH**)<sub>2</sub>(**BTMB**)<sub>2</sub>**Guest** [**M** = **Co** (**2**) and **Ni** (**3**)],**Pb**(**H**-**BTMB**) **Guest** (**4**) and**M**<sub>4</sub>(**OH**)<sub>2</sub>[(**BTMB**)<sub>2</sub>(**4**,**4**'-**Bipy**)<sub>3</sub>] **Guest** [**M** = **Zn** (**5**) and **Cd** (**6**)]. These interesting **SPCPs**, possesses an aromatic terminating low density surface that is highly corrugated over the nano-scale causes the superhydrophobic (self-cleaning) nature with contact angles >150°.<sup>4-6</sup> Moreover, this superhydrophobic nature is stable even at high temperature, whose stability depends on structure, metal coordination and guest species *etc*.

All these **SPCPs** exhibit very interesting gas separation and, oil and organic solvent spills cleanup applications. In this presentation, we discuss, synthesis, structures, characterizations, properties and applications these novel **SPCPs**. However, compound, **6**, converted from hydrophobic at RT to hydrophilic at 70°C.<sup>6</sup> This study can provide a roadmap for design and synthesis of novel superhydrophobic porous materials for the applications in the energy and securing the environment.

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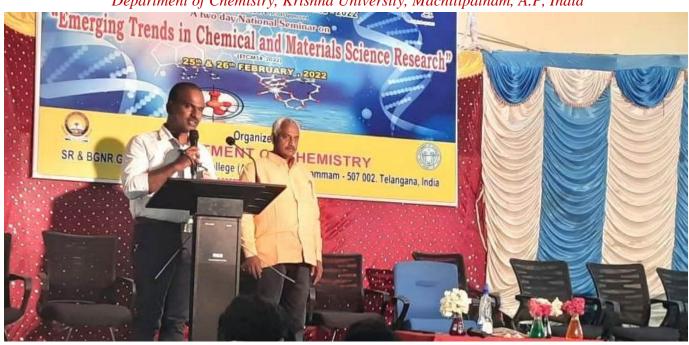
on the occasion of "National Science Day-2022 Celebrations"

**Key –Note Lecture-II** 

Prof. Mandava V. Basaveswara Rao

"Diversity Oriented Synthetic Methodologies for the Molecules of Biological Interest"

Department of Chemistry, Krishna University, Machilipatnam, A.P, India





#### Diversity Oriented Synthetic Methodologies for the Molecules of Biological Interest Prof. Mandava V. Basaveswara Rao

Department of Chemistry, Krishna University, Machilipatnam, A.P, India E-mail: vbrmandava@yahoo.com, professormandava@gmail.com

#### **Abstract**

Methodologies to synthesize molecules of commercial value and their derivatives of biological importance is the attractive area of research, thereby creating library of known and unknown molecules having potential applications. Synthetic methods that allow rapid access to large number of diverse structural arrays is growing constantly, which served as a new driving force for the new innovations. In order to synthesize large number of molecules with high level of diversity and complexity, In addition to developing new synthetic techniques and reagents, organic chemists are exploring new methods to design and to evolve new molecules, strategies for new molecules leading to new source of diversity and improving the quality of compound libraries of natural product origin. This diverse new methodologies that will create structurally diverse compounds efficiently in high yields and with excellent purity and with wide range of functional groups as handles to expand them further. One of the richest sources of diversity in drug discovery is development of synthetic routes for the natural products and their derivatives.

Natural products isolated from marine and terrestrial origins, in addition to exhibiting biological activity, also serve as rapid scaffolds for further display of broad range of functionalities. For several years, we have been engaged in design and development of new efficient methodologies for a wide variety of heterocycles, displaying a range of skeletal and functional group diversity. The biological properties of heterocycles in general make them one of the prime interests of the pharmaceutical industry, storage device platforms for opto-electronic industry.

We have synthesized various heterocyclic skeletons initially and utilized them for making other heterocycles. All the synthetic methodologies reported by us are simple efficient and does not involve hitherto costlier chemicals, circuitous reaction pathways, drastic reaction conditions and corrosive molecules. We have exploited [4+2] cycloaddition reactions, [3+3]Cycloaddition reactions, indolo[2,3]quinodimethanes and dienolates, anion assisted aromatic annulations, heteroaromatic annulations and doubly handled reactions. Our aromatic and heteroaromatic annulation strategies are highly efficient, simple and results in variety of molecules with quantitative yields.

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#### Two Day National Seminar on

"Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022)

on the occasion of "National Science Day-2022 Celebrations"

### **Paper/Poster Presentations by the Research Scholars/Students**









Paper/Poster Presentations by the Research Scholars/Students and

**Judges Evaluating the Presentations** 



<u>Paper/Poster Presentations by the Research Scholars/Students and</u>
<u>Judges Evaluating the Presentations</u>



Awarding Best Paper/Poster Presentations Certificate and Cash award to the Research Scholars/Students



Participants Opinion/Feedback on the Programme



Participants/Audience of the Programme









**Lunch for the Invitees and Participants** 



#### Two Day National Seminar on

"Emerging Trends in Chemical and Materials Science Research" (ETCMSR-2022)

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#### **Valedictory Session**













Felicitation to the Retired faculty of Dept. of Chemistry, Chairman, Invitees & Guests.



Chairman Dr. Mohd. Zakirullah

Convener Dr. P. Ramesh



Co-convener Dr. V. Shantikumar

Organising Secretory Dr. M. Subramanyam

## నేడు, రేపు రసాయనశాస్త్ర జాతీయ సదస్సు

ఖమ్మం ఎడ్యుకేషన్, ఫిబ్రవరి 24: నగరంలోని ఎస్ఆర్అండ్బీజీఎన్ఆర్ రసాయన శాస్త్ర విభాగ ఆధ్వర్యంలో శుక్ర, శనివారాల్లో 'ఎమర్జింగ్ టెండ్స్ ఇన్ కెమికల్ అండ్ మెటీరియల్స్ సైన్స్ రీసెర్చ్' అనే అంశంపై జాతీయ సదస్సును నిర్వహిస్తున్నట్లు కళాశాల టిన్సిపాల్, సదస్సు చైర్మన్ డాక్టర్ మహ్మద్ జాకీరుల్లా తెలిపారు. శుక్రవారం కేయూ వీసీ ఆచార్య టీ రమేశ్ హాజరవుతారన్నారు. సమా వేశంలో ఉస్మానియా విశ్వవిద్యాలయం, గాంధీనగర్ సెంట్రల్ యూనివర్సిటీ, కృష్ణా విశ్వవిద్యాలయం, నిట్ వరంగల్ తదితర విశ్వవిద్యాలయాల నుంచి ప్రతి నిధులు హాజరై మాట్లాడతారన్నారు.

### నేటి నుంచి రసాయన శాస్త్ర జాతీయ సదస్సు

[పజాపక్షం/ ఖమ్మం : నగరంలోని ఎస్ఆర్అండ్బిజిఎన్ఆర్ కళాశాల రసాయన శాస్త్ర విభాగం ఆధ్వర్యంలో ఈనెల 25, 26 తేదీల్లో ఎమర్జింగ్ ట్రెంట్స్ ఇన్ కెమికల్ అండ్ మెటీరి యల్స్ సైన్స్ రిసెర్స్ అనే అంశంపై జాతీయ సదస్సును నిర్వహిస్తున్నట్లు కళాశాల టిన్సిపాల్, సదస్సు ఫైర్మన్ డా। మహ్మద్ జాకీరుల్లా తెలిపారు. శుక్రవారం జరిగే ప్రారంభ సమావేశానికి కాకతీయ విశ్వవిద్యాలయ ఉపకులపతి ఆచార్య టి. రమేష్ ముఖ్య అతిథిగా హాజరు కానున్నా రని తెలిపారు. ఈ సమావేశంలో ఉస్మానియా విశ్వ విద్యాలయం గాంధీనగర్, గుజరాత్ సెంట్రల్ యూనివర్సిటీ, కృష్ణా విశ్వ విద్యాలయం, నిట్ వరంగల్, నైఫర్ హైదరాబాద్, కాకతీయ తదితర విశ్వ విద్యాలయాల నుంచి రసాయన శాస్త్ర ఆచార్యులు ఈ సదస్సులో పాల్గొంటారని తెలిపారు. సదస్సు కన్వీనర్గా కళాశాల రసాయన శాస్త్ర విభాగాధిపతి రమేష్, సంయుక్త కన్వీనర్గా డా।। వి.శాంతికుమార్, ఆర్గనైజింగ్ సెకటరీగా డా।। ఎం.సుబ్రహ్మణ్యం వ్యవహరి స్తారని తెలిపారు.

## నేటి నుంచి జాతీయ సదస్సు

**ఖమ్మం సహకారనగర్**: నగరంలోని ఎస్ఆర్ అండ్ బీజీఎన్ఆర్ డిగ్రీ కళాశాలలో రసాయన శాస్త్ర విభాగం ఆధ్వర్యంలో ఈ నెల 25, 26(నేడు, రేపు) తేదీల్లో ఎమర్జింగ్ ట్రెండ్స్ ఇన్ కెమికల్ అండ్ మెటీరియల్ సైన్స్ రీసెర్స్ అనే అంశంపై జాతీయ సదస్సును నిర్వహిస్తున్నట్లు కళాశాల ప్రిన్సిపాల్, సదస్సు వైర్మన్ మహ్మద్ జకీరుల్లా గురువారం ఒక ్రపకటనలో తెలిపారు. ముఖ్య అతిథిగా కేయూ వైస్ చాన్స్ లర్ టి.రమేష్ హాజరవుతారని తెలిపారు. అదే విధంగా ఓయూ, గుజరాత్ సెంటల్ యూనివ ర్పిటి, కృష్ణా యూనివర్సిటిలకు చెందిన రసా యనశాస్త్ర ప్రొఫెసర్లు పాల్గొంటారన్నారు. సద స్పుకు కన్వీనర్గా కళాశాల రసాయనశాస్త్ర విభాగాధిపతి డాకర్ పి.రమేష్, సంయుక కన్వీనర్గా డాక్టర్ వి.శాంతికుమార్, ఆర్గనైజిం గ్ సెక్రటరీగా ఎం.సుబ్రహ్మణ్యం వ్యవహరిస్తా రని పేర్కొన్నారు.

## పరిశోధనల్లో కీలకంగా రసాయన శాస్త్రం

ఖమ్మం సహకారనగర్ : మారుతున్న మానవాళి జీవనశైలి కారణంగా కొత్త వ్యాధులు వస్తున్నా యని.. ఈ నేపథ్యాన ఫార్మా రంగంలో జరుగు తున్న పరిశోధనల్లో రసాయన శాస్త్రం కీలకంగా మారిందని హైదరాబాద్లోని సీఎస్ఐఆర్, ఐఐసీటీ సీనియర్ ట్రిన్సిపల్ సైంటిస్ట్ డాక్టర్ కె.సురేష్బాబు తెలిపారు. ఎస్ఆర్ అండ్ బీజీఎస్ఆర్ డిగ్రీ కళాశాల రసాయన శాస్త్ర విభాగం ఆధ్వర్యాన 'ఎమర్జింగ్ టైండ్స్ ఇన్ కెమికల్ అండ్ మెటీరియల్స్ సైన్స్ రీసెర్స్' అంశంపై జాతీయ సదస్సు శుక్రవారం ప్రారంభమైంది. ఈ సందర్భంగా ప్రిన్సిపాల్ డాక్టర్ మహ్మద్ జకీరుల్లా అధ్యక్షతన సమావేశంలో సురే ష్బాబు మాట్లాడుతూ..రుగ్మతల కాలంలో శాస్త్రం కీలకపాత్ర పోషిస్తోందని వివరించారు. కేయూ కెమ్మిస్ట్ విభాగాధిపతి ప్రాఫెసర్ జి.బ్రహ్మేశ్వరి ఉన్నాయని తెలిపారు. ఆ తర్వాత కేయూ కెమ్మిస్ట్



సదస్సు సౌవనీర్ ను ఆవిష్కరిస్తున్న ఆహుతులు

బీఓఎస్ చైర్మన్ ప్రొఫెసర్ వాసుదేవరెడ్డి, ప్రొఫెసర్ ఎస్.శంకరయ్య, గాంధీనగర్ ప్రాఫెసర్ డాక్టర్ బి.ఈశ్వరయ్య, డాక్టర్ మురళీధర్రెడ్డి, కళాశాల కెమ్మిస్ట్ ప్రాఫెసర్ ఎం.సుబ్రహ్మణ్యం, సదస్సు కన్వీనర్ డాక్టర్ పి.రమేష్ తదితరులు మాట్లాడగా 20మంది పరిశోధనాప్రతాలు సమర్పించారు. సీవీ రామన్ చిత్రపటానికి నివాళులర్పించి, సావనీర్ను ఆవిష్కరించారు. ఈ కార్యక్రమంలో పి.రవిమా మాట్లాడుతూ..కోర్పుతో అనేక ఉపాధి అవకాశాలు రుత్, కేఎస్ఎస్.రత్న్రపసాద్, డాక్టర్ బి.వెంకటేశ్వర రెడ్డి, డాక్టర్ సీతారాం తదితరులు పాల్గొన్నారు.

## 21వ శతాబ్దిలో పెరిగిన రసాయనిక శాస్త్ర ఆవశ్యకత



ఖమ్మం ఎడ్యుకేషన్, ఫిబ్రవరి 25(మనం న్యూస్) : గ్లోబలీకృత ప్రపంచంలో మారుతున్న మానవాళి జీవనశైలి వల్ల అనేక వైరస్లలు దాడి చేస్తున్న స్థప్తుత సందర్భంలో రసాయనిక శాస్త్ర ఆవశ్యకత, ఫార్మాస్యూటికల్ రంగంలో గణనీయంగా పెరిగిందని హైదరాబాద్ సిఎస్ఐఆర్–ఐఐసిటీ సీనియర్ ట్రిన్సిపల్ సైంటిస్ట దాక్టర్ కె.సురేష్బాబు పేర్కొన్నారు. శుక్రవారం ఎస్ఆర్బిజీఎనార్ కళాశాల రసాయనిక శాస్త్ర విభాగం ఆధ్వర్యంలో కళాశాల టిన్సిపల్ దాక్టర్ మహ్మద్ జాకీరుల్లా అధ్యక్షతన సైన్స వారోత్సవాల సందర్భంగా ఎమర్జింగ్ ట్రెండ్స్ ఇన్ కెమికల్ అండ్ మెటీరియల్స్ సైన్స్ రీసెర్చ్' అనే అంశంపై నిర్వహిస్తున్న రెందురోజుల జాతీయ సెమినార్లో ఆయన ముఖ్య అతిథిగా పాల్గొని కిలకోపన్యాసం చేశారు. 21వ శతాబ్దిలో వేగవంతంగా మారుతున్న ఆహారపు అలవాట్లు, వాతావరణంలో వస్తున్నమార్పులు అనేక రుగ్మతలకు దారి తీస్తున్న సందర్భంలో రసాయనిక శాస్త్రం భిన్న రూపాల్లో కీలక పాత్ర పోషిస్తుందని తెలిపారు. గౌరవ అతిథిగా పాల్గొన్న కెయు కెమ్మిస్ట్ విభాగాశాఖాధిపతి ప్రొఫెసర్ జి.బ్రహ్మేశ్వరి మాట్లాదుతూ కెమ్మిస్ట్ విద్యార్థులకు అనేక ఉపాధి అవకాశాలు ఫార్మాకంపెనీల ద్వారా వస్తున్నాయన్నారు. కెయు కెమ్మిస్టీ ఛైర్మన్

బిఓఎస్ ఫ్రొఫెసర్ వాసుదేవరెడ్డి,హైదరాబాద్ నైపర్ కెమ్మిస్టీ అసోసియేట్ ఫ్రాఫెసర్ ఎన్.శంకరయ్య, గుజరాత్ గాంధీనగర్ సెంట్రల్ యూనివర్శిటీ ప్రొఫెసర్ డాక్టర్ బి.ఈశ్వరయ్య, ఉస్మానియా కెమ్మిస్ట్ విభాగం అసిస్టెంట్ ప్రొఫెసర్ డాక్టర్ పి.మురళీధర్రెరెడ్డి తమ సందేశాలను అందించారు. ప్రారంభ కార్భక్రమంలో జ్యోతి బ్రజ్వలన చేశారు. అనంతరం కళాశాల కెమిస్ట్రీ అసిస్టెంట్ ప్రొఫెసర్ డాక్టర్ ఎం.సుబ్రహ్మణ్యం అతిథులకు స్వాగతం పలికారు. కెమ్మిస్టీ విభాగాధిపతి సదస్సు కన్వీనర్ డాక్టర్ పి.రమేష్ సదస్సు ముఖ్య ఉద్దేశాలను పత్ర సమర్పకుల అంశాల సారాంశాన్ని వివరించారు. కార్యక్రమంలో అటానమస్ గవర్నింగ్ బాడీ సభ్యులు పి.రవిమారుత్, వైస్ ట్రిన్సిపాల్స్ కెఎస్ఎస్ రత్న ప్రసాద్, డాక్టర్ బి.వెంకటేశ్వరరెడ్డి, కెయు పాలకమందలి సభ్యులు కళాశాల తెలుగు సీనియర్ అధ్యాపకులు

దాక్టర్ సీతారాం, రసాయనిక శాస్త్ర అధ్యాపకులు దాక్టర్ వి.శాంతికుమార్, భదునాయక్, బాలకృష్ణ, శ్రీనివాస్, మహేష్, వివిధ కాలేజీల నుండివచ్చి పత్రసమర్పలు, విద్యార్థులు పాల్గొన్నారు. తొలి రోజు 20 మంది పత్ర సమర్పణలు చేశారు.



## రసాయనిక శాస్త్ర ఆవశ్యకత పెలగింది

ఖమ్మంఖానాపురం హవేలీ, ఫిట్రవరి 25: 21వ శతాబ్దం లో రసాయనిక శాస్త్ర ఆవశ్యకత పెరిగిందని హైదరాబాద్ సీఎస్ఐఆర్-ఐఐసీటీ సీనియర్ ట్రిన్సిపాల్, శాస్త్రలవేత్త డా క్టర్ కే.సురేష్బాబు అన్నారు. సైన్స్ వారోత్సవాల సందర్భం గా నగరంలోని ఎస్సార్&బీజీఎన్నార్ కళాశాల రసాయనశా స్త్ర విభాగం ఆధ్వర్యంలో ట్రిన్సిపాల్ డాక్టర్. మహమ్మద్ జాకీరుల్లా అధ్యక్షతన శుక్రవారం జరిగిన ఎమర్జింగ్ ట్రెండ్స్ ఇన్ కెమికల్ అండ్ మెటీరియల్స్ సైన్స్ రీసెర్స్ అనే అం శంపై నిర్వహిస్తున్న రెండు రోజుల జాతీయ సెమినార్లో



<mark>సావనీ</mark>ర్ను ఆవిష్కరిస్తున్న దృశ్యం

ఆయన ముఖ్య అతిథిగా పాల్గొని మాట్లాడుతూ 21వ శతాబ్దిలో మారుతున్న ఆహారపు అలవాట్లు, వా తావరణంలో జరుగుతున్న మార్పుల వల్ల అనేక రుగ్మతలు కలుగుతున్నాయన్నారు. దీనివల్ల వైరస్లు విజృంభిస్తున్నాయని, వీటిని అరికట్టేందుకు రసాయనశాస్త్రం భిన్నరూపాల్లో కీలకపాత్ర పోషిస్తున్నదని సురేష్బాబు పేర్కొన్నారు. ఈ సెమినార్లో కేయూ కెమిస్ట్రీ విభాగం శాఖాధిపతి జీ. బ్రహ్మేశ్వరి, కేయా కెమిస్ట్రీ ఫైర్మన్ ప్రొఫెనర్ వాసుదేవరెడ్డి, ప్రొఫెనర్లు ఎం,శంకరయ్య, డాక్టర్. బీ. ఈశ్వరయ్య, బీ. మురళీధ రరెడ్డి, ఎం.సుబ్రహ్మణ్యం, సదస్సు కన్వీనర్ డాక్టర్ రమేష్, రవిమారుత్, కేఎస్. రత్నపసాద్, డాక్టర్.కే.సీ తారాం తదితరులు పాల్గొన్నారు.

## రసాయనిక శాస్త్ర ఆవశ్యకతకు ఆదరణ : డా సురేష్బ్లాబు

ప్రజాపక్షం/ ఖమ్మం : గ్లోబలీకృత ప్రపంచంలో మారుతున్న మానవళి జీవనశైలి వల్ల అనేక వైరస్లు దాడి చేస్తున్న ప్రస్తుత తరుణంలో రసా యనిక శాస్త్ర అవశ్యకత ఫార్మాస్యూ టికల్ రంగం గణనీయంగా పెరి గిందని హైదరాబాద్ సిఎస్ఐఆర్ ఐఐసిటి సీనియర్ ట్రిన్సిపల్ సైన్సిస్ట్ శుక్రవారం ఎస్ఆర్అండ్బిజిఎన్ శాస్త్ర విభాగం ఆధ్వర్యంలో కళా శాల ట్రిన్సిపల్ దా।। మహ్మద్ జాకీ రుల్లా అధ్యక్షతన సైన్స్ వారోత్స వాల సందర్భంగా " ఎమర్జింగ్ ట్రెండ్స్ ఇన్ కెమికల్ అండ్ మెటీరి యల్స్ సైన్స్ రిసెర్స్ " అనే అంశంపై నిర్వహిస్తున్న రెండు రోజుల జాతీయ సెమినార్లో ఆయన ముఖ్య అతిథిగా పాల్గొని మాట్లాదారు. 21వ శతాబ్దంలో వేగవంతంగా మారుతున్న ఆహా రపు అలవాట్లు, వాతావరణంలో వస్తున్న మార్పులు అనేక రుగ్మత



లకు దారి తీస్తున్న సందర్భంలో రసాయనిక శాస్త్రం భిన్న రూపా లలో కిలక పాత్ర పోషిస్తుందని తెలి పారు. కెయు కెమ్మిస్టి విభాగం శాఖాధిపతి, ప్రో। జి.బ్రహ్మేశ్వరి మాట్లాడుతూ కెమ్మిస్టీ విద్యార్థులకు అనేక ఉపాధి అవకాశాలు ఫార్మా కంపెనీల ద్వారా వస్తున్నాయని తెలిపారు. కెయు కెమ్మిస్టీ ఛైర్మన<u>్</u> బివోఎస్ ప్రొ।। వాసుదేవరెడ్డి, హైద రాబాద్ నైపర్ కెమ్మిస్టీ అసోసియేట్ (ప్రో।। ఎన్. శంకరయ్య, గుజరాత్ గాంధీనగర్ సెంట్లల్ యూనివ වුඩ් බුෑ සා වී. සෑරුරරා ු, ఉస్మానియా కెమ్మిస్టీ విభాగం అసి స్టెంట్ ప్రోగ్ డాగ్ మురళిధర్రెడ్డి

తమ సందేశాలను అందించారు. ప్రారంభ కార్యక్రమంలో జ్యోతి మ్రజ్వలన చేశారు. అనంతరం కళా శాల కెమ్మిస్ట్రీ అసిస్టెంట్ ప్రో॥ దా॥ ఎం. సుబ్రహ్మణ్యం అతిథులకు స్వాగతం పలికారు. కెమ్మిస్టీ శాఖా ధిపతి, సదస్సు కన్వీనర్ డా।। పి. రమేష్ సదస్సు ముఖ్య ఉద్దేశాన్ని వివరించారు.ఈ కార్యక్రమంలో అటానమస్ గవర్నింగ్ బాడి సభ్యులు పి. రవిమారుత్, వైస్ ట్రిన్సిపాల్స్ కెవిఎస్ రత్నట్రసాద్, దా।। బి.వెంకటేశ్వరరెడ్డి, కెయు పాలక మందలి సభ్యులు, కళాశాల తెలుగు సీనియర్ అధ్యాపకులు దా।। సీతారాం, రసాయనిక శాస్త్ర అధ్యాపకులు దాగి వి. శాంతికు మార్, భద్రునాయక్, బాలకృష్ణ, త్రీనివాస్, మహేష్, వివిధ కళాశ<u>ా</u> లల నుంచి ప్రత సమర్చకులు, అధ్యాపకులు, విద్యార్థిని, విద్యా ర్మలు పాల్గొన్నారు. అనంతరం అతిథులను ఘనంగా సత్కరిం

# ముగిసిన జాతీయ సెమినార్ సదస్సు

ఖమ్మంఖానాపురంహవేలి, ఫిబ్రవరి26: నగరంలోని ఎస్ఆర్అండ్బీజీఎన్ ఆర్ ప్రభుత్వ డిగ్రీ కళాశాలలో రెండురోజులుగా నిర్వహిస్తున్న జాతీయ సెమినార్ ఉత్సవాలు శనివారంతో ముగిశాయి. ఎమర్జింగ్ (ఫెండ్స్ ఇన్ కెమికల్ అండ్ మెటీరియల్స్ సైన్సు రీసెర్సి అనే అంశంపై రసాయనిక శాస్త్ర ఆవశ్యకత పెరిగిందని కళాశాల బ్రిన్సిపాల్ మహ్మడ్ జాకీరుల్లా అన్నారు. శనివారం ఈసదస్సుకు ముఖ్యఅతిథిగా మండవ బసవేశ్వరరావు, మహిళ డిగ్రీ కళాశాల బ్రిన్సిపాల్ పద్మావతి, ఓయూబ్రొఫెసర్ డాక్టర్ పి.జలపతి, ఓయూ స్రొఫెనర్ డాక్టర్సోమేష్ హాజరై మాట్లాడారు. మారుతున్న ఆహారపు అలవాట్లు, వాతావరణంలో

జరుగుతున్న మార్పుల వల్ల అనేక రుగ్మతలు కలుగుతున్నాయన్నారు. దీనివల్ల వైరస్లలు విజృంభి స్తున్నాయని, వీటిని అరికట్టేందుకు రసాయన శాస్త్రం భిన్నరూపాల్లో కీలకపాత్ర పోషిస్తున్నదని పేర్కొన్నారు. ఈ జాతీయ సదస్సులతో రానున్న కాలంలో రసాయన శాస్త్రం ఉపయోగాలను వివరించడం జరుగుతుందన్నారు. వీరితోపాటు మరికొంతమంది బ్రొఫెసర్లు ఈకార్యక్రమాన్ని ఆఫ్లెన్ ద్వారా నిర్వహించినందుకు అభినందించారు. ఈ సెమినార్లలో వైస్ (పిస్స్ఫిపాల్స్ ఎస్.రత్న్మపసాద్, వెంకటేశ్వరరెడ్డి, సదస్స్సు కస్వీనర్ డాక్టర్ రమేష్, సబ్రబహ్మణ్యం, శ్రీనివాస్ ఎం.బాలకృష్ణ, రమాసత్యవతి, అధ్యాపకులు పాల్గొన్నారు.



మాట్లాడుతున్న ట్రిన్సిపాల్ జాకీరుల్లా

## ముగిసిన జాతీయ సదస్సు

ఖమ్మం సహకారనగర్: నగరంలోని ఎస్ఆర్ అండ్ బీజీఎన్ఆర్ డిగ్రీ కళాశాలలో ఏర్పాటు చేసిన జాతీయ సదస్సు శనివారం ముగిసింది. 'ఎమర్జింగ్ టెండ్స్ ఇన్ కెమికల్ అండ్ మెటీరియల్స్ సైన్స్ రీసెర్స్' అంశంపై కెమిస్టీ విభాగం ఆధ్వర్యాన నిర్వ పొంచిన ఈ సదస్సు ముగింపు సమావేశంలో టిన్సిపాల్ మహ్మద్ జకీరుల్లా మాట్లాడారు. సదస్సు ఉద్దేశాలను వివరించిన ఆయన ఉపాధి అవకాశాలపై విద్యార్థులు అవగాహన పెంచు కోవాలని సూచించారు. మహిళా డిగ్రీ కళాశాల టిన్సిపాల్ జి.పద్మావతి, మండవ బస్వేశ్వరరావు, కాళ్ల పాపారావు మాట్లాడగా, కళాశాల వైస్ టిన్సిపాళ్లు రత్నట్రసాద్, వెంకటేశ్వరరెడ్డి, సదస్సు కన్వీనర్ పులబాల రమేష్ తదితరులు పాల్గొన్నారు.

## ముగిసిన జాతీయ సదస్సు



ఖమ్మం ఎడ్యుకేషన్, ఫిట్రవరి 26 : నగరంలోని ఎస్ఆర్ అండ్ బీజీఎన్ఆర్ ట్రభుత్వ డిగ్రీ కళాశాలలో రసాయన శాస్త్రం విభాగం ఆధ్వర్యంలో నిర్వహిస్తున్న రెండురోజుల జాతీయ సదస్సు శనివారంతో ముగిసింది. 'ఎమర్జింగ్ టెండ్స్ ఇన్ కెమి కల్ అండ్ మెటీరియల్స్ సైన్స్ రీసెర్స్' అనే అంశంపై పలువురు ట్రాఫెసర్లు ట్రసంగించారు. ముగింపు సమావేశంలో కళాశాల టిన్సిపాల్ జకీరుల్లా మాట్లాడుతూ కొవిడ్–19 సమయంలో నవ శాస్త్రవేత్తలు తయారవ్వడం ఎంతో అవసరమని, ఇలాంటి సెమినార్స్, కాన్ఫరెన్స్ల్లలు నిర్వహించి కొత్త విధానాలు, కొత్త విషయాలతో సమాజానికి సేవలు చేసే విధంగా సైంటిస్టులను తయారుచేయాల్సిన అవసరం ఉందన్నారు. డాక్టర్ మండల బస్వేశ్వరరావు, పద్మావతి, జలపతి, సోమేశ్, శ్రీనివాస్ మాట్లా డారు. కార్యక్రమంలో కాళ్ళ పాపారావు, రత్నట్రసాద్, వెంక టేశ్వరరెడ్డి, పులబాల రమేశ్, శాంతి, సుబ్రహ్మణ్యం తదితరులు పాల్గొన్నారు.

## ముగిసిన రసాయనశాస్త్ర్రజాతీయ సదస్సు

ఖమ్మం విద్యావిభాగం, న్యూస్ట్ మీస్ ఆర్టీజీఎన్ఆర్ ప్రభుత్వ డిగ్రీ కళాశాలలో రెండు రోజుల పాటు జరిగిన రసా యనశాస్త్ర జాతీయ సదస్సు శనివారం ముగిసింది. ట్రిన్సిపల్ డాక్టర్ మహ్మద్ జకీరుల్లా మాట్లాడుతూ సదస్సు విజయవంతానికి సహకరించిన వారికి కృతజ్ఞతలు తెలిపారు. ముఖ్యఅతిథిగా మండవ బస్వేశ్వరరావు, అధ్యాపకురాలు డాక్టర్ జి.పద్మావతి, కాళ్ల పాపారావు, సదస్సు కన్వీనర్ డాక్టర్ పి.రమేశ్, రసాయనశాస్త్ర అధ్యాపకులు పాల్గొన్నారు.