



**ONE DAY STATE-LEVEL WORKSHOP ON  
“EMERGING TRENDS IN PHYTOCHEMISTRY AND NATURAL  
PRODUCTS”**

**9<sup>th</sup> November 2021**



Organized by:

**Department of Chemistry**

*in collaboration with*

**Department of Botany**

**TARA GOVERNMENT COLLEGE SANGAREDDY**

**(Autonomous)**

**(ISO 9001:2015 CERTIFIED)**

(Affiliated to Osmania University & Accredited by NAAC with „B“ grade, 2.75 CGPA)

**SANGAREDDY-502 001, SANGAREDDY (Dist), T.S., INDIA**

Website: <https://gdcts.cgg.gov.in/sangareddy.edu>

E-mail: [prl-gdc-srd-ce@telangana.gov.in](mailto:prl-gdc-srd-ce@telangana.gov.in)

### Resource Persons:

**Prof. Y. JAYAPRAKASH RAO**

Department of Organic Chemistry  
Osmania University, Hyderabad.

**Prof. B. VIDYA VARDHINI**

Department of Botany  
Telangana University, Nizamabad.

### Organizing committee:

**Chairperson: Smt. M.Praveena**

Principal (FAC)

**Convener: Abhijit Kantankar**

Head, Department of Chemistry

**Co- Convener: Dr.S.Vijaya**

Head, Department of Botany



### Members:

Dr. O.Padmaja, Asst. Professor of Botany

N.Siddulu, Asst. Professor of Botany

N. Sravani Asst. Professor of Chemistry

V. Manoj Kumar, Asst. Professor of Chemistry

J. Ravi Kumar, Asst. Professor of Chemistry

K. Sreedhar, Asst. Professor of Chemistry

R. Shiva Deepti, Asst. Professor of Chemistry

## **ABOUT THE WORKSHOP**

The workshop intended to address emerging trends related to phytochemical and Natural product research in the field of chemical and biological sciences. The workshop is so designed has address the challenges faced during the research in phytochemical and Natural products by enlightening the recent aspect of the scientific research strategies. The goal of the workshop is to make the participants update in the research field with proper orientation of research protocols.

## **OBJECTIVES OF THE WORKSHOP**

1. Characterization and Importance of Phytochemicals and Natural Products.
2. Impact of Environmental stress on composition of phytochemicals.
3. Isolation procedures for natural products from plant material.
4. Recent protocols of designing novel natural product analogues with pharmacological activities.
5. New synthetic strategies for Natural product scaffolds.
6. Case study of synthesis of natural products.

## ABOUT THE RESOURCE PERSONS

### Prof . Y. Jayaprakash Rao

M. Sc, Ph.D, Osmania University, Hyderabad



**Prof. Y. Jayaprakash Rao** is an academician and researcher in the area of organic chemistry. He is having more than **30 years** of teaching and research experience. Prof. Rao has a broad range of research interests with current focus on natural products isolation and design of new strategies for synthesis of bioactive heterocyclic compounds. He has authored over **90 research papers** in leading national and international journals and is a much sought after speaker having delivered over 60 lectures in national and international seminars, conferences and also Organized several National and International seminars & conferences.. Prof. Rao is a recipient of Telangana State **Best Teacher award 2016** and is a **fellow of ICC and ICS**. He has also acted as an author for Telugu academy books. He served as the **Registrar of Telangana University**, Nizamabad. He has also organized several National and International seminars & conferences.

### Prof. B. VidyaVardhini

M. Sc, Ph.D, Telangana University, Nizamabad



**Prof. B. Vidya Vardhini** is a Professor and Head in the Department of Botany, Telangana University. She is the Former **REGISTRAR** of Telangana University. She has **25 years** of teaching and research experience. **She published 78 Research and Review Articles** in National and International journals with good Impact Factors. She has presented **69** papers in National and International Seminars /Conferences etc. She attended **21** National and International Seminars /Conferences etc. She served as Lead Guest Editor/ Review Board Member for **11** Journals. She reviewed nearly **149** research articles. She was the **Convener/ Coordinator/Co-**

**Convener for 9 National Seminars/Popular Lectures Series/Science Academies' Lecture Workshop** sponsored by A.P. State Council for Higher Education, Indian Council of Medical Research (ICMR), New Delhi and SERB (Science and Engineering Research Board, The Department of Science and Technology (Ministry of Science and Technology, Govt. of India), Indian Academy of Sciences, Bangalore, Indian National Science Academy. New Delhi, The National Academy of Sciences, Allahabad etc. She is an **Associate fellow of Telangana Academy of Sciences (TAS)**, Hyd.

## **Technical Session-I**

**Resource Person: Prof. Y. Jayaprakash Rao**

### **Natural products isolation, Characterization and Synthesis**

- Primary and secondary metabolites
  - Concept of Natural Products
  - Sources of Natural Products
  - Classification of Natural Products
  - Nomenclature of Natural Products
  - Importance of Natural Products
  - Medicinal plants
  - Chemistry of Natural Products
- Extraction of Natural Products
- Methods of Extractions-Conventional and Modern

### **Modern and Greener Extraction Methods**

- a) Super Critical Fluid Extraction(SFE)
- b) Pressurized Liquid Extraction(PLE)
- c) Microwave Assisted Extraction(MAE)
- d) Ultrasound Assisted Extraction(UAE)
- e) Pulsed Electric Field Extraction(PEF)
- f) Enzyme Assisted Extraction(EAE)

## **Technical Session-II**

**Resource Person: Prof. Y. Jayaprakash Rao**

### **Emerging isolation strategies in Natural products from Plant material**

- Role of Solvents in Extraction process
- Selection of plant material for Natural Product extraction

### **Purification of Natural Products**

- a. Chromatographic techniques
- b. Non- Chromatographic techniques

### **Structural Elucidation of Natural Products using MS, XRD , 1D NMR and 2D**

#### **NMR-Menthol-A case study**

- a. Total Synthesis of Natural Product
- b. Retro synthesis of Menthol

### **Current research significance in Natural products**

- Natural products and Industry 4.0
- Role Connecting Genes in Natural products discovery
- Modern directions in natural products chemistry
- Issues and challenges in Natural Products today
- Research areas in natural products today

## **Technical Session-III**

**Resource Person: Prof.B.Vidyavardhini**

### **Importance of Flora in new Drug Discovery**

- Importance of Secondary metabolites in Medicinal Chemistry
- Phyto-chemical modulations in Stress physiology of plants

## **Chemical composition of plant-Biochemistry**

- Plant Growth regulators
- Crop Modulators-Applications
- Phyto-hormones-Physiological Significance
- Biosynthesis of Phyto-hormones

### **Technical Session-IV**

**Resource Person: Prof.B.Vidyavardhini**

#### **Brassinosteroids**

- Classification
- Physiology
- Applications

#### **Physiological Responses of Salicylic Acid-A case study**



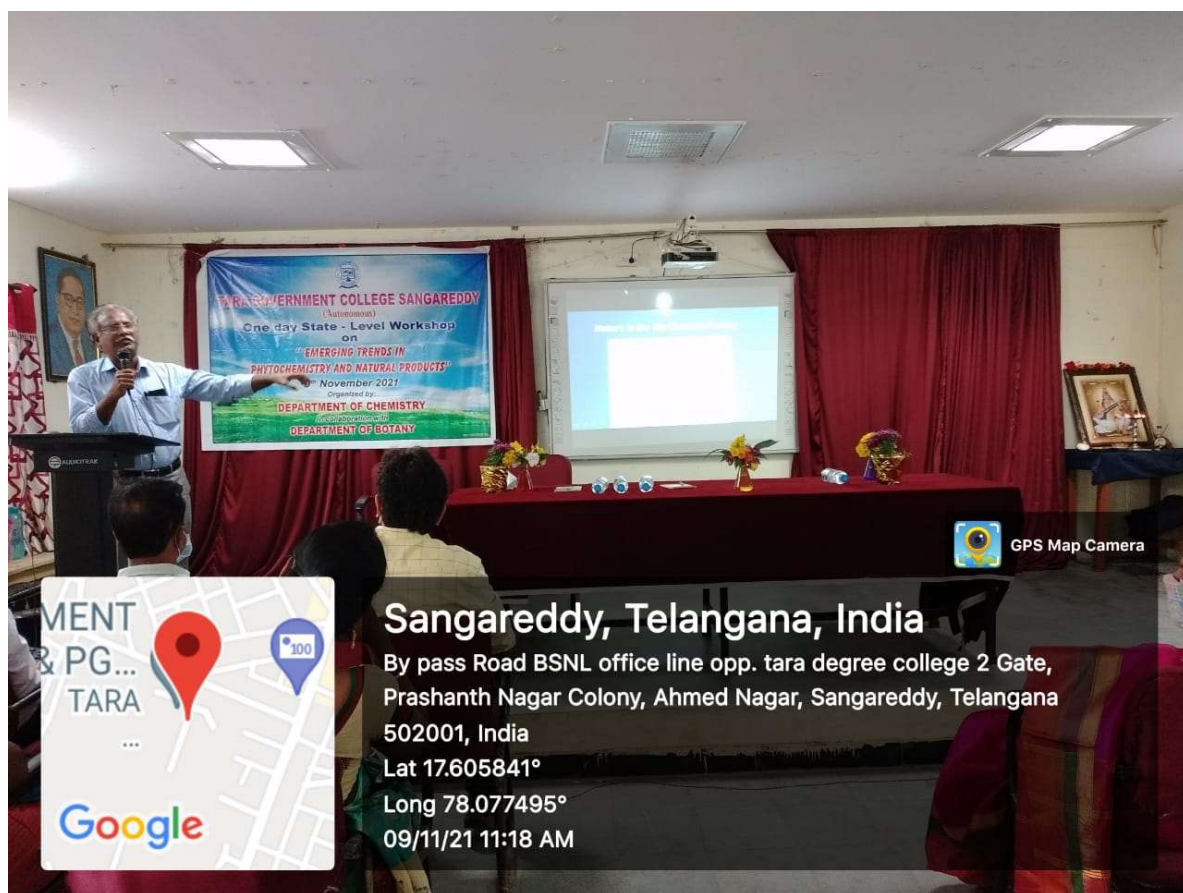






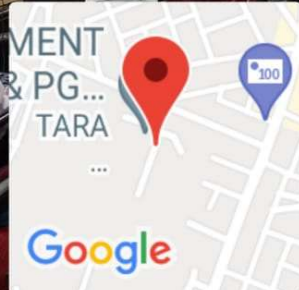


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TARA GOVERNMENT COLLEGE SANGAREDDY  
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One day State - Level Workshop  
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November 2021  
Organized by  
DEPARTMENT OF CHEMISTRY  
DEPARTMENT OF BOTANY

GPS Map Camera

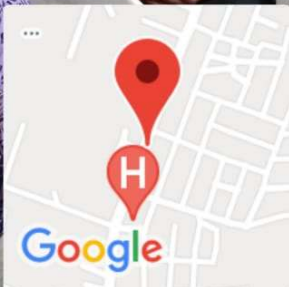


### Sangareddy, Telangana, India

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502001, India  
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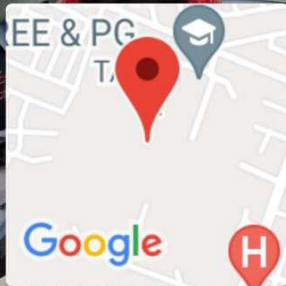


### Sangareddy, Telangana, India

Plot No. 133, Survey No. 2 Balaji Nagar, Venkateshwar Colony,  
Sangareddy Bypass Rd, opp. BSNL Office, Marepally, Ahmed Nagar,  
Sangareddy, Telangana 502001, India  
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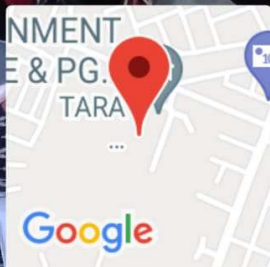
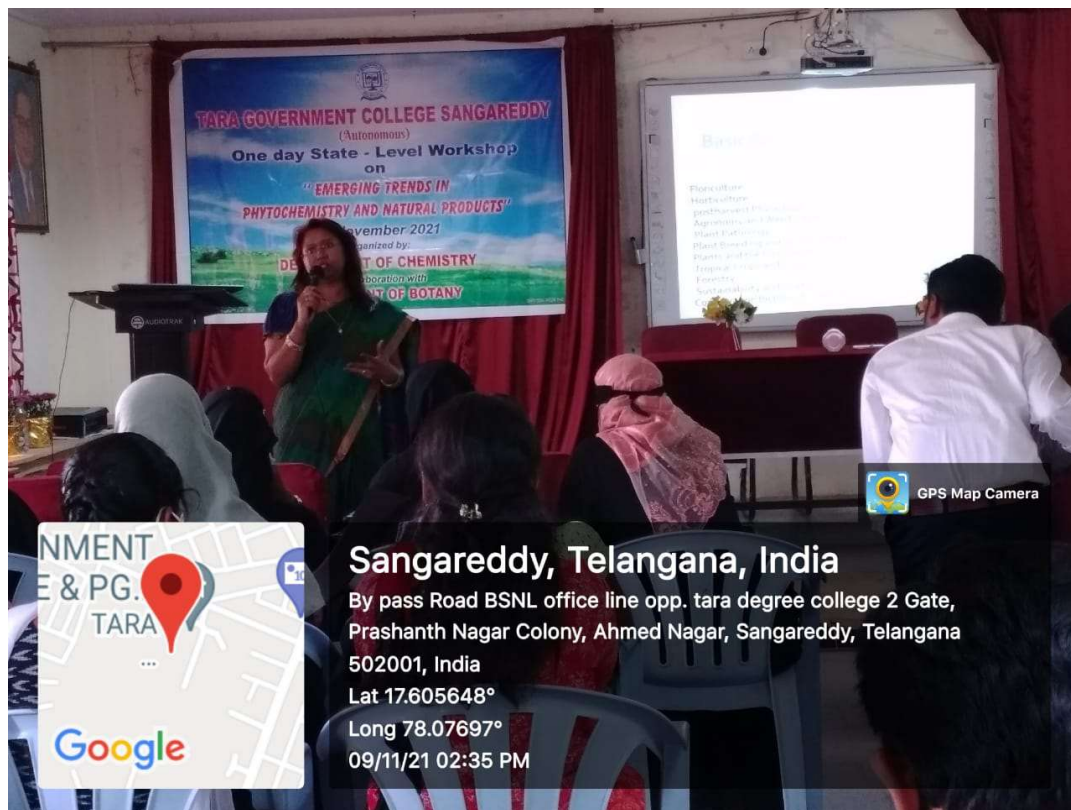


GPS Map Camera



### Sangareddy, Telangana, India

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Sangareddy, Telangana 502001, India  
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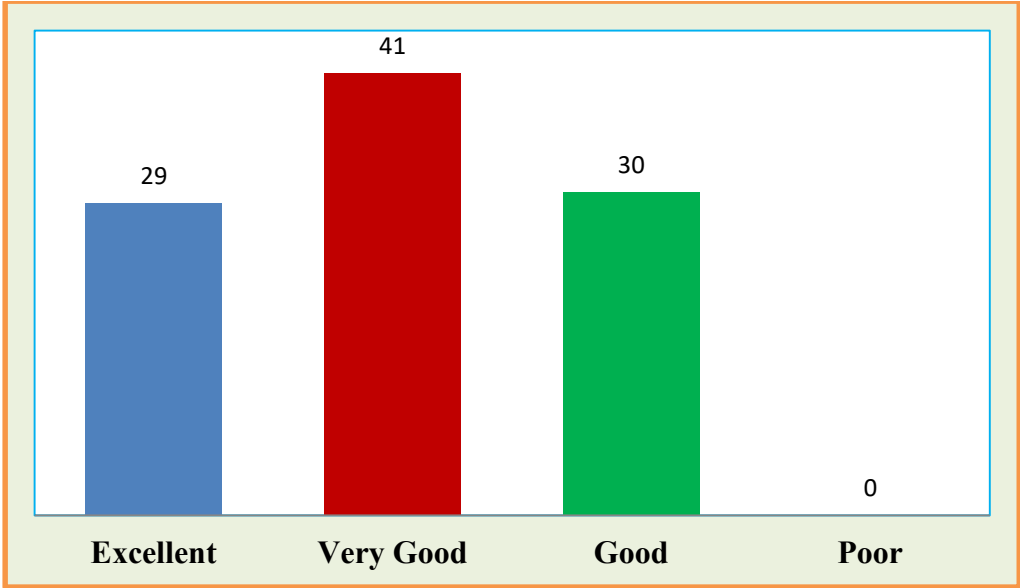


## Sangareddy, Telangana, India

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Prashanth Nagar Colony, Ahmed Nagar, Sangareddy, Telangana  
502001, India  
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Long 78.07697°  
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**FEEDBACK ANALYSIS:**



# PRESS COVERAGE

## 'తారా' కళాశాలలో కార్యశాల

సంగారెడ్డి టౌన్: సంగారెడ్డిలోని తారా ప్రభుత్వ డిగ్రీ కళాశాలలో మంగళవారం వృక్షశాస్త్ర విభాగం ఆధ్వర్యంలో ఒకరోజు రాష్ట్రస్థాయి కార్యశాలను నిర్వహించారు. ప్రిన్సిపల్ ప్రవీణ, ప్రొఫెసర్లు జయప్రకాశరావు మాట్లాడుతూ వృక్షశాస్త్ర విద్యార్థులు పరిశోధనలపై దృష్టిసారించాలని కోరారు.

## ఈనాడు

### విద్యార్థులకు అవగాహన

కొండాపూర్(సంగారెడ్డి): జిల్లా కేంద్రమైన సంగారెడ్డిలోని తారా ప్రభుత్వ డిగ్రీ కళాశాలలో మంగళవారం రాసాయనశాస్త్రం, వృక్ష శాస్త్రం విభాగాల ఆధ్వర్యంలో ఒక రోజు వర్క్ షాపును నిర్వహించినట్లు కళాశాల ప్రిన్సిపాల్ ప్రవీణ తెలిపారు. ఫైబోకెమిస్ట్రీ, జాతీయ ఉత్పత్తులు అంశంపై విద్యార్థులకు అవగాహన కల్పించారు. ఈ వర్క్ షాప్‌నకు ముఖ్య అతిథిగా విచ్చేసిన ప్రొ జయప్రకాష్ రావు

మొక్కల్లో ఉండే రసాయనాలు, వాటి ప్రాముఖ్యతను వివరించారు. కాగా ఈ కార్యక్రమానికి రిసోర్స్ పర్సన్ గా విచ్చేసిన తెలంగాణ విశ్వవిద్యాలయ ప్రొ విద్యావర్ధిని మాట్లాడుతూ పర్యావరణంలోని మార్పులు మొక్కలపై ప్రభావాన్ని చూపిస్తాయని తెలుపుతూ మొక్కల అనుఘటనను విశ్లేషించారు. ఈ కార్యక్రమంలో కళాశాల వైస్ ప్రిన్సిపాల్ ఉపేందర్, వెంకటేశం, ప్రోగ్రాం కో ఆర్డినేటర్ అభిజిత్, విజయ, అధ్యాపకులు శ్రావణి, పద్మజ, రవికుమార్, శ్రీధర్, సిద్దులు తదితరులున్నారు.



## REGISTRATION FORM

NAME: \_\_\_\_\_

ACADEMIC QUALIFICATIONS: \_\_\_\_\_

DESIGNATION: \_\_\_\_\_

DEPARTMENT: \_\_\_\_\_

NAME OF THE ORGANIZATION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

MOBILE NO: \_\_\_\_\_

EMAIL: \_\_\_\_\_

PAYMENT ID: \_\_\_\_\_

DATE: \_\_\_\_\_

Signature of the applicant

### REGISTRATION FEE

FACULTY : RS.150/-

SCHOLARS : RS.100/-

STUDENTS : RS.50/-

MODE OF PAYMENT: GPAY (NO. 9502344392)

SPOT REGISTRATIONS ARE ALSO AVAILABLE

For details contact : **9502344392**

For registration :

<https://forms.gle/4NFKXJd6X2PAKZ3ZA>

### Resource Persons:

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### Organizing Committee :

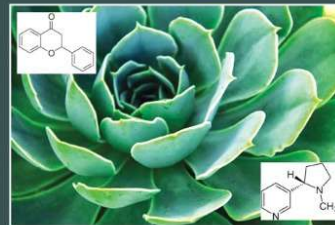
CHAIRPERSON : SMT. M.PRAVEENA  
Principal (FAC)  
CONVENER : ABHIJIT KANTANKAR  
Head, Department of Chemistry  
CO- CONVENER : DR.S.VIJAYA  
Head, Department of Botany



### MEMBERS :

DR. O.PADMAJA, Asst. Professor of Botany  
N.SIDDULU, Asst. Professor of Botany  
N. SRAVANI, Asst. Professor of Chemistry  
V. MANOJ KUMAR, Asst. Professor of Chemistry  
J. RAVI KUMAR, Asst. Professor of Chemistry  
K. SREEDHAR, Asst. Professor of Chemistry  
R. SHIVA DEEPTI, Asst. Professor of Chemistry

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E-mail: [prj-gdc-srd-ce@telangana.gov.in](mailto:prj-gdc-srd-ce@telangana.gov.in)

### About the College

As we flip through the pages of history "Sangareddy", formerly known as Sangareddy peta and dates back to 2nd B.C to 1st A.D of Shalivahana reign. It has cherished its cultural heights under the rule of Sangha Bhupala. Since then, Sangareddy carved a niche for itself in the Telangana State. Subsequently Tara Government College, Sangareddy which was named after Smt. Tara Swaroop, who donated Rs. 2 Lakhs towards corpus fund during the inception of the college added a feather in the cap of Sangareddy. It has started imparting higher education at Two levels, viz., UG and PG with 40 varied disciplines in the U.G stream and 10 in the PG stream. Since then, the college has made rapid stride from 232 to 2846 students. Now Tara Government College is acknowledged as a premier institution of higher education and affiliated to Osmania University. The college was recognized as an Autonomous College in 2015 in which year the UGC expert committee visited the college and recommended Autonomous status for the college. The College is committed to cater the needs of the all stakeholders of the society. Housed in large buildings with built in area of 96,000 Sq.ft on a beautiful campus of 20 acres.

Sensing the market needs, Restructured courses were added in 1998. The Principal and dynamic team of faculty contribute significantly to the fulfillment of the academic programmes. Since its inception, Tara Government College, Sangareddy has seen tremendous academic progress and students won many Laurels from across the society. The college is one of the few chosen to start the pilot project of National Service Scheme (NSS) and the National Cadet Corps (NCC). The college Library has nearly 18,578 books. The college has the distinction to introduce the Telangana Skill & Knowledge Centre (TSKC), a unique program of the Government of Telangana which enhances the employability. Hon'ble Commissioner of Collegiate Education has reached an MoU with Telangana Academy for Skills and Knowledge (TASK). As part of this, the college has been offering Skills for employability to students.

The Commissionerate of Collegiate Education (CCE), recognizing its academic and administrative excellence, identified this college as an "Identified College" (ID College) & District Resource Centre (DRC) from where it discharges several academic and administrative functions in monitoring all the O7 Government Degree Colleges in the district. In recognition of its academic quality and excellence, the National Assessment and Accreditation Council (NAAC) has accredited the College with B+ grade in March, 2006 and reaccredited with "B" grade by NAAC (CGPA 2.75 on four points scale) in March 2013.

### About Sangareddy Town :

Sangareddy (formerly Sangareddypeta) is a town and the district headquarters of Sangareddy district in the Indian state of Telangana. It was named after the ruler Sanga, who was the son of Rani Shankaramba, a ruler of Medak during the period of Nizams. The district is spread over an area of 4,464.87 square kilometres (1,723.90 sq mi). As of 2011 Census of India, the district has a population of 15,27,628. The city has three large-scale public sector industries. These are Bharat Heavy Electricals Limited (one of the MAHARATNA companies of the Indian Government), Bharat Dynamics Limited (where one of India's most powerful missiles, PRITHVI was produced), and Ordnance Factory Medak (which manufactures the Sarath tanks for the Indian Army). The NH-9 road passes through the city. About 15 km Away from Sangareddy there is an outer ring road which connects to Shamshabad airport - Rajiv Gandhi International Airport, Hyderabad, Gachibowli, and Medchal. The nearest air transport facility is Hyderabad International Airport, which is 70 km from Sangareddy.

### About The Department of Chemistry :

Tara Govt. (A) College, Sangareddy was started in the year 1977 with B.A Humanities, B.Sc courses were introduced in the year 1981 with the combination of Mathematics, Physics, Chemistry(MPC) and Botany, Zoology, Chemistry (BZC), English as medium of instruction was started in the year 1998. In view of the demand for chemistry (Number of chemical industries around Sangareddy town) M.Sc Organic Chemistry a self financed course was started in 2006. In the year 2013 MPC, BZC English medium courses were started at UG Level. Currently Department of chemistry has more than 1000 students with 7 combinations with chemistry as one of the subject where as the intake of M.Sc. Organic chemistry is 60 students per year. Department has three spacious laboratories one instrumentation room, one balance room, one store room and one separate staff room for chemistry teaching faculty. In addition to this Department has separate library. The Department was well established and has well equipped like spectrophotometers, conductometers, pH-meters, colorimeters, polarimeters, ovens and vacuum pumps etc. Chemistry students from this college are rendering services to the society in various levels under Government and Private Organizations. Department of Chemistry has well experienced and qualified faculty. One minor research project has been completed in the Department sponsored by UGC-SERO. Department of chemistry has also organized two national seminars and completed one UGC sponsored minor research project.

Students of BSc-III(Chemistry), J.Manjulatha, A. Bhanuprakash, J.Swetha, A.Pranaya, P.Pooja, G.Sai Ganesh have won state level Second Prize in "JIGNASA" study projects-2020 in Chemistry under the super-vision of K.Abhijit, Asst. Professor of Chemistry. In CPGET-2019-conducted by Osmania University, G.Shirisha secured State level 1st Rank in CHEMISTRY.

### About The Department of Botany :

The department was established during the academic year-1977 with B.Sc combinations of Botany,Zoology and Chemistry. During that academic year the Department was confined to a single room. It was established by Smt.G.Vijaya,Lecturer in Botany. With increase of strength year by year and based on CBCS system many groups are formed with new combinations i. e. BZC with both mediums, BTBC, MBZC, BZCA and BZM. Along the undergraduate courses, there is a Post Graduate course with 60 sanctioned seats. The Department has well established labs with many types of equipments such as microscopes, centrifuges,OHP,oven and other specific gadgets. The department has a library with number of books. In CPGET in the year 2020 a student named Shamim got first rank, many other students have also got good ranks.

### About The Workshop

The workshop intended to address emerging trends related to phytochemical and Natural product research in the field of chemical and biological sciences. The workshop is so designed that it addresses the challenges faced during the research in phytochemical and Natural products by enlightening the recent aspect of the scientific research strategies. The goal of the workshop is to make the participants update in the research field with proper orientation of research protocols.

### Objectives of the Workshop

- 1.Characterization and Importance of Phytochemicals and Natural Products.
- 2.Impact of Environmental stress on composition of phytochemicals.
- 3.Isolation procedures for natural products from plant material.
- 4.Recent protocols of designing novel natural product analogues with pharmacological activities.
- 5.New synthetic strategies for Natural product scaffolds.
6. Case study of synthesis of natural products.



**RECORD OF  
SEMINARS/WORKSHOPS/EXTENSION LECTURES**

*Department of  
Chemistry*

<b>S.No.</b>	<b>Name of Resource person</b>	<b>Affiliation</b>	<b>Date</b>	<b>Topic</b>	<b>No. of students and Faculty participated</b>
<b>1</b>	<b>Dr.Eeshwaraiah.B</b>	Assistant Professor & DST-Inspire Faculty, Centre for Applied Chemistry, School of Material Sciences, <b>Central University of Gujarat, Gandhinagar.</b>	<b>02.11.2022</b>	<b>Student Sensitizing Programme on “Research Methodology in Chemistry”</b>	<b>125</b>
<b>2</b>	<b>Dr. Venkata Nagendra Kumar Putta</b>	Assistant Professor of Chemistry, <b>GITAM, Deemed to be University, Hyderabad</b>	<b>15.09.2022</b>	<b>“Ask the Expert” On the occasion of International Day for the Preservation of the Ozone Layer-2022</b>	<b>90</b>
<b>3</b>	<b>Dr.P. Adavavi Raju</b>	Assistant Professor of Chemistry, <b>Nehru Memorial Govt. Degree College, Jogipet.</b>	<b>27.07.2022</b>	<b>Career with Chemistry</b>	<b>55</b>
	<b>K.Venkateshwarlu</b>	Assistant Professor of Chemistry, <b>Govt. Degree College, Narayankhed.</b>			
<b>4</b>	<b>Dr.D.Karunakar</b>	Assistant Professor of	<b>20.07.2022</b>	<b>Career Guidance Programme for</b>	<b>35</b>

		Chemistry, Govt. Degree College, Sadashivpet.		Higher Education in Chemistry	
5	<b>K.Kanaka DurgaPrasad</b>	Lecturer in Geology, Nagarjuna <b>Government College (A), Nalgonda, Telangana</b>	22.04.21	<b>Restore Our Earth</b>	71
6	<b>Dr. Shabana Shaik,</b>	Senior Research Associate, Department of Neurobiology, <b>The University of Chicago, Chicago, IL- 60637, USA.</b>	20.04.21	<b>Small Is Big: The Big Impact Of Small Ribonucleic Acids In Biomedical Research</b>	173
7	<b>Dr. Praveen Vemula</b>	Senior Scientist <b>inStem, Bangalore</b>	03.04.21	<b>Entrepreneurship- Opportunities through Research in Science</b>	145
8	<b>Dr. A.Dayanand</b>	Assistant Professor of Chemistry, <b>Government City College, Hyderabad, Telangana</b>	23.03.21	<b>Impact of Water chemistry on Life</b>	65
9	<b>Mr. Saleem Pasha</b>	Assistant Professor of Chemistry, <b>Government Degree College (A), Siddipet, Telangana</b>	02.03.21	<b>Paper Chromatography</b>	40
10	<b>Prof. S.B. Jonnalagadda</b>	Senior Professor, <b>University of KwaZulu- Natal, Durban (UKZN) South Africa.</b>	27.12.2019	<b>Mixed oxides &amp; Nano composites as Catalysts for value added synthesis and water synthesis</b>	100

**RECORD OF  
SEMINARS/WORKSHOPS/EXTENSION LECTURES***Department of  
Chemistry*

<b>11</b>	<b>Dr. I. Vani</b>	Asst.Profssor <b>GDC, Kukatpally</b>	<b>17.04.2019</b>	<b>Carbohydrates</b>	<b>25</b>
<b>12</b>	<b>K. Ramesh</b>	Research Scholar <b>IIT, Hyderabad</b>	<b>03.03.2019</b>	<b>Electrochemistry</b>	<b>20</b>
<b>13</b>	<b>Dr. Sabitha.Y</b>	Managing Director & Chief Scientist from <b>Ciencia Life Sciences, Hyderabad</b>	<b>15.02.19</b>	<b>Molcular Docking</b>	<b>25</b>
<b>14</b>	<b>Dr. B.V.BhadraGirish</b>	Environmental Enginer, <b>Pollution Control Board, Sangareddy District</b>	<b>15.09.18</b>	<b>Preservation of the Ozone Layer</b>	<b>100</b>

## Report on Student Sensitizing Programme on “Research Methodology in Chemistry”

Department of Chemistry, Tara Government College, Sangareddy (A) in Tara Government College, Sangareddy (A) has conducted the Student sensitizing Programme on “Research Methodology in Chemistry” on **02.11.2022**. **Dr.Eeshwaraiah.B**, Assistant Professor & DST-Inspire Faculty, Centre for Applied Chemistry, School of Material Sciences, **Central University of Gujarat, Gandhinagar** was acted as resource person for the Programme. The Programme mainly focused on Recent developments of Chemistry and its allied sciences with respect Research and Development. Around **125** Students and Faculty members have participated in the Programme.

### About the Resource person:



**Dr. Eeshwaraiah Begari** has 15 years of Research and Teaching experience. He has actively engaged in quality research programs in **Colorado State University**, Fort Collins, USA and **Illinois Wesleyan University**, Bloomington, USA with eminent researchers like Prof. J L Wood, Prof. Michio Kurosu and Prof. Ram Mohan. He received **INSPIRE Faculty Fellowship Award-2012** (Session-I) under AORC Scheme of DST (Chemistry) for his outstanding performance in the field. He has published **28 research papers** in reputed International Peer reviewed journals and **17 patents** for extraordinary inventions. He is one of the proud alumni of Department of Chemistry, Tara Government College, Sangareddy (A). Currently he is working as Assistant Professor of Chemistry at Central University of Gujarat, Gandhinagar, Gujarat, India.


**Convener of the Programme : Dr. K.Abhijit**, Head, *Department of Chemistry, Tara Government College, Sangareddy (A)*.

### Key points Discussed in the Programme:

The program focussed on recent trends in research in chemistry and allied sciences. The resource person enlightened the advance synthetic strategies used in drug development using novel synthetic reagents and solvent free synthesis. He has also explained the contemporary significance of Green Chemistry in organic synthesis. The lecture also focused on advances in analytical techniques in drug discovery and design like chiral chromatography, HPLC, C<sup>13</sup>, H<sup>1</sup>, F<sup>19</sup> NMR and cyclic voltammetry. The lecture also spotlighted on research ethics. **Dr. Eeshwaraiah** also explained about the career opportunities in Pharmaceutical chemistry and analytical chemistry.







**TARA GOVERNMENT COLLEGE SANGAREDDY (A)**  
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PIN CODE: 502001, Ph: 08455-276507  
[prl-gdc-srd-cc@telangana.gov.in](mailto:prl-gdc-srd-cc@telangana.gov.in)

**Department of Chemistry**

*Cordially invites you for the Programme*


**“Student sensitizing programme”**  
on  
**“Research Methodology in Chemistry”**

**Resource person**

**Dr. Eeshwaraiah Begari**  
Assistant Professor & DST-Inspire Faculty  
Centre for Applied Chemistry  
School of Applied Material Sciences  
Central University of Gujarat, Gandhinagar-382030,  
Gujarat, India

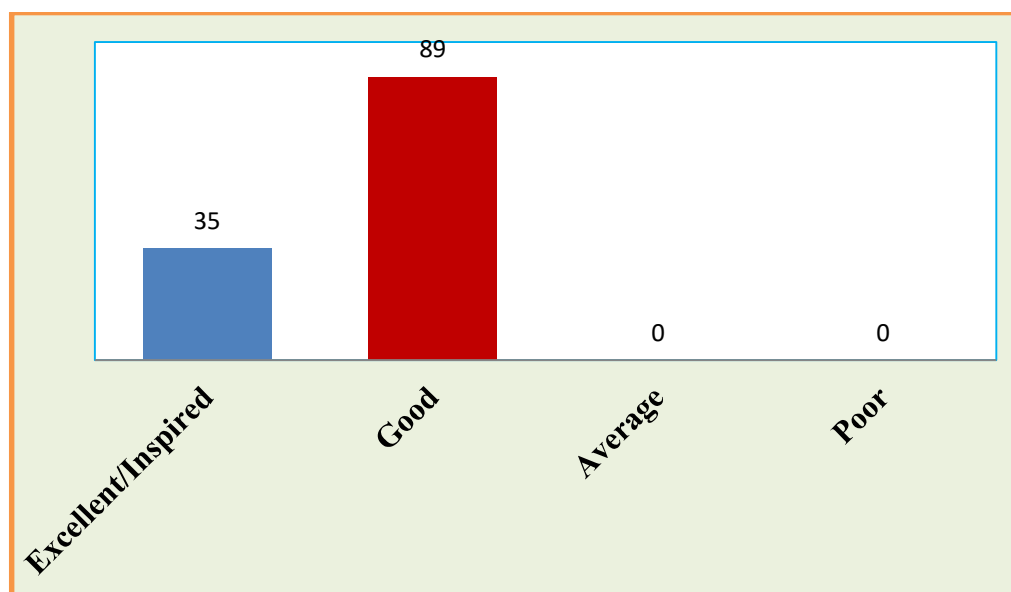
On Wednesday, 02-11-2022 at 11:00 AM  
Venue  
Seminar Hall  
TARA GOVERNMENT COLLEGE SANGAREDDY (A)

**ABOUT THE RESOURCE PERSON**



Dr. Eeshwaraiah Begari has 15 years of Research and Teaching experience. He has actively engaged in quality research programs in Colorado State University, Fort Collins, USA and Illinois Wesleyan University, Bloomington, USA with eminent researchers like Prof. J L Wood, Prof. Michio Kurosu and Prof. Ram Mohan. He received INSPIRE Faculty Fellowship Award-2012 (Session-I) under AORC Scheme of DST (Chemistry) for his outstanding performance in the field. He has published 28 research papers in reputed International Peer reviewed journals and 17 patents for extraordinary inventions. He is one of the proud alumni of Department of Chemistry, Tara Government College, Sangareddy(A). Currently he is working as Assistant Professor of Chemistry at Central University of Gujarat, Gandhinagar, Gujarat, India.

### Feed-Back Analysis:



**“ASK THE EXPERT”****On the occasion of International Day for the Preservation of the Ozone Layer-2022**

On the occasion of **International Day for the Preservation of the Ozone Layer-2022**, the Department of Chemistry in collaboration organized the innovative programme, “**Ask the Expert**” to discuss and interact with the expert on environmental issues with special concern on Ozone layer on **15.09.2022**. For this programme **Dr. Venkata Nagendra Kumar Putta**, Assistant Professor of Chemistry, GITAM, Deemed to be University, Hyderabad was acted as resource person. Around **90** Students have participated in the Programme.

**Convener of the Programme : Dr. K.Abhijit**, Head, *Department of Chemistry, Tara Government College, Sangareddy (A)*.

**About the Resource person:**

**Dr. Venkata Nagendra Kumar putta** has 26 years of Teaching and Research experience. He has published 17 research papers in reputed International Peer reviewed journals. He has organized two workshops to enlighten the research spirit among the scholars and faculty. He has a life time membership in many professional bodies like BARC, Indian Science Congress Association etc. He has also received Best teacher award by GITAM for the year 2022. He has successfully completed Indian academy of Sciences Summer internship. Dr. Putta has completed two world class research Projects sponsored by BARC and Department of Atomic Energy.



**Brief Note on the Programme:**

On the occasion of **International Day for the Preservation of the Ozone Layer-2022**, the Department of Chemistry in collaboration with Eco-Club embarked on the innovative initiative of sensitising the students of Tara Government College. So, a few enthusiastic students came forward to learn about the need for a greener tomorrow. The selected students were assembled on 15 September 2022 at 11 a.m. in the seminar hall. Initiating the event Lt.V. Manoj kumar, Asst Prof of Chemistry welcomed all the guests onto the dais.

Principal Smt. M. Praveena, Principal of the college welcomed the chief guest, **Dr. Venkata Nagendra Kumar Putta** and other dignitaries. She spoke about the green tomorrow from the perspective of language. Then, she invited K. Sreedhar, Asst Prof of Chemistry, to explain the achievements and accomplishments of the Chief Guest. The students and other staff who attended the programme applauded at the academic achievements of the Chief Guest. The principal, then invited the Eco-club convener Smt K Sugunavathi to speak a few words. Smt K. Sugunavathi, Asst Prof of Zoology, exhorted on th need for eco initiatives at micro level, with special reference to homes and work places. The principal invited programme convener, Dr. K. Abhijit to spell out objectives of the programme. Dr. K. Abhijit, Asst Prof of Chemistry and Head, Department of Chemistry, welcomed all the dignitaries. He revealed the impact of the present-day attitude of human beings towards nature with special reference to consumerism. He wondered how much sensitisation is suffice to curb the menace of consumerism.

He explained the concept of minimalism. He, then gradually brought the concept of Ozone layer depletion and its ill – effects. He thanked the Chief Guest for his time and concluded his brief speech. The President of the programme and principal, Smt M. Praveena, then, requested the Chief Guest and the speaker of the programme, Dr. Venkata Nagendra Kumar Putta to take the session.

Dr. Venkata Nagendra Kumar Putta addressed the dignitaries all the dignitaries and started his session. He informed all the audience that he did not attend the session to speak, but to answer the queries posed by the audience. He explained about the Ozone layer in the layman's words. He explained what would happen if there is no Ozone Layer. He suggested the measures to be taken at individual-level, family-level and societal-level to arrest the increase of reduction

in the thickness of Ozone layer. He invited student participants to shoot queries so that he could clarify concepts.


The student participants posed the following questions.

- 1. How is ozone expected to change in the coming decades? And what are the possible alternative solutions for the crisis?**
- 2. Is depletion of ozone layer the principal cause of global climate change?**
- 3. What is the impact of UV radiation on aquatic ecosystems due to ozone layer depletion?**
- 4. What are the pre- pandemic and post pandemic (w.r.t. COVID-19) impact on ozone layer depletion?**
- 5. Are ozone layer depletion and increase of UV radiation affect increase in eye diseases?**
- 6. What is Montreal protocol? What can we learn from it?**
- 7. Which energy source does not increase carbon emission?**

The chief guest answered the queries with utmost authority and in the simplest sentences possible. Principal requested Smt Shiva Deepthi, Asst Prof of Chemistry to propose vote of thanks. Smt Shiva Deepthi expressed gratitude to the chief guest, principal and departmental colleagues for their contribution.








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prl-gdc-srd-ce@telangana.gov.in

**Department of Chemistry**  
*In collaboration with Eco-Club*

*Cordially invites you for the Programme*

**Ask the Expert**


On the occasion of International Day for the  
Preservation of the Ozone Layer-2022



Resource person  
**Dr. Venkata Nagendra Kumar Putta**  
ASSISTANT PROFESSOR OF CHEMISTRY  
GITAM Deemed to University,  
Hyderabad  
India

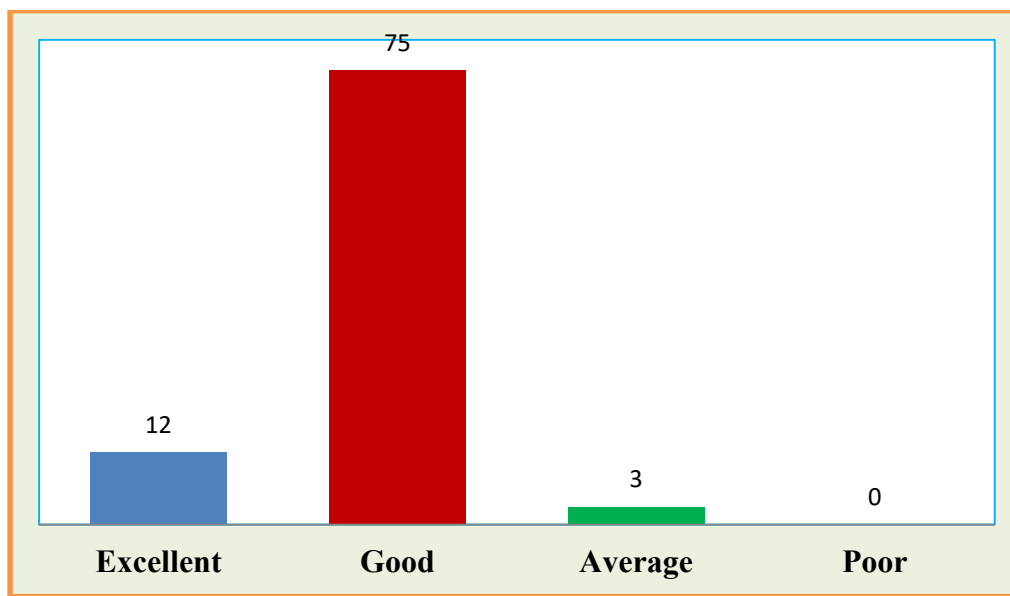
On Thursday, 15-09-2022 at 11:00 AM  
Venue  
Seminar Hall

**ABOUT THE RESOURCE PERSON**



Dr. Venkata Nagendra Kumar putta has 26 years of Teaching and Research experience. He has published 17 research papers in reputed International Peer reviewed journals. He has organized two workshops to enlighten the research spirit among the scholars and faculty. He has a life time membership in many professional bodies like BARC, Indian Science Congress Association etc. He has also received Best teacher award by GITAM for the year 2022. He has successfully completed Indian academy of Sciences Summer internship. Dr. Putta has completed two world class research Projects sponsored by BARC and Department of Atomic Energy.

### Feed-Back Analysis:



**Press Coverage:**

## పర్యావరణ పరిరక్షణ అందరి బాధ్యత

సంగారెడ్డి టౌన్ పర్యావరణ పరిరక్షణ అందరి బాధ్యత అని గీతం యూని వర్సిటీ ఆసిస్టెంట్ ప్రొఫెసర్ వెంకట నాగేంద్రకుమార్ పేర్కొన్నారు. గురు వారం స్థానిక తారా ప్రభుత్వ డిగ్రీ కళాశాల ఎకో క్లబ్ ఆధ్వర్యంలో ఓజోన్ దినోత్సవం సందర్భంగా ఏర్పాటుచేసిన సదస్సులో ఆయన పాల్గొని మాట్లాడారు. పర్యావరణ కాలుష్యంతో ఓజోన్ పొరకు నష్టం వాటిల్లుతోందని పేర్కొన్నారు. కాలుష్యంపై పోరులో అందరూ భాగస్వాములు కావాలని పిలుపునిచ్చారు. అనంతరం విద్యార్థుల సందేహాలు నివృత్తి చేశారు. కార్యక్రమంలో కళాశాల ప్రిన్సిపల్ ప్రవీణ, అధ్యాపకులు, విద్యార్థులు పాల్గొన్నారు.

ఈనాడు

### “CAREER WITH CHEMISTRY”

#### **An extension lecture conducted by the department of Chemistry**

Department of Chemistry of Tara Government College Sangareddy (A) conducted a career oriented programme for the students of **B.Sc. Chemistry** students on **27.07.2022**. **Dr. P. AdaviRaju**, Assistant Professor of Chemistry, **Nehru Memorial Govt. Degree College, Jogipet** and **Sri K.Venkateshwarlu**, Assistant Professor of Chemistry, **Govt. Degree College, Narayankhed** were acted as Resource persons for the programme. The programme mainly focused Job opportunities for the students, immediately after graduation programme in Chemistry. Around **55** students of B.Sc. Chemistry II and III year students participated in the programme.

**Convener of the Programme : Dr. K.Abhijit**, Head, *Department of Chemistry, Tara Government College, Sangareddy (A)*.

**About the Resource persons:**

**Dr. P. AdaviRaju** has 22 years of Teaching experience and 5 years of Research experience. He has been extending duties as a Principal of **Nehru Memorial Govt. Degree College, Jogipet** with Full Additional Charge (FAC). He has published four international research papers in the field of Physical Chemistry.



**Sri K.Venkateshwarlu** has 30 years of Teaching experience and 4 years of Research experience. He has been extending duties as a Principal of **Govt. Degree College, Narayankhed** with Full Additional Charge (FAC). He has published three international research papers in the field of Organic Chemistry.

**Brief Note on the Programme:**

The programme started in the Seminar Hall at 11:00 AM. The students welcomed the president of the occasion Smt M. Praveena, principal onto the dais. They also welcomed the convener and Head of the Department Dr. K. Abhijit. The students then welcomed the chief guests **Dr. P. AdaviRaju** and **Sri K.Venkateshwarlu** onto the dais. The students acknowledged the presence of other teachers who attended the session to witness the lecture.

Addressing the students, Smt M. Praveena, principal of Tara GC Sangareddy (A), explained about the importance of Chemistry as a career. She explained about the job opportunities available in the industries / laboratories in and around the Sangareddy district.

Dr K. Abhijit welcomed the guests and explained about the objectives of the programme. He delved out deep into the job/career opportunities with Chemistry.

**Dr. P. AdaviRaju** started his lecture by posing a few basic questions to students. After the ice-breaking session, he explained career opportunities with Chemistry. His lecture includes the following points

- What is a career like with Chemistry as a subject?
- How a career with Chemistry is different from other subjects?
- How is lab work different from admin work?
- Is research possible in a lab while the incumbent does work?

His talk received applause and good response. His talk was followed by Q and A session wherein he clarified doubts of the students and dispelled fears and doubts they posed.

Next to talk was **Sri K.Venkateshwarlu**. He explained about the softskills to be developed to lead a good career. He exhorted on how to emulate successful people and learn to implement discipline with stress on self-discipline. He received good response from the audience.

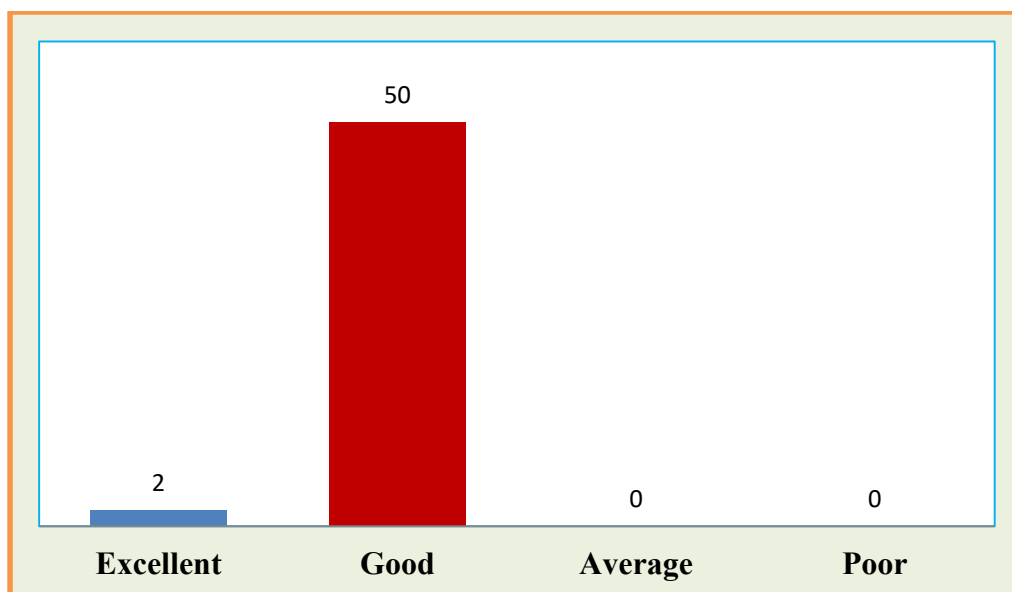
Vote of thanks was offered by Smt. Shiva Deepthi, Assistant Professor of Chemistry.



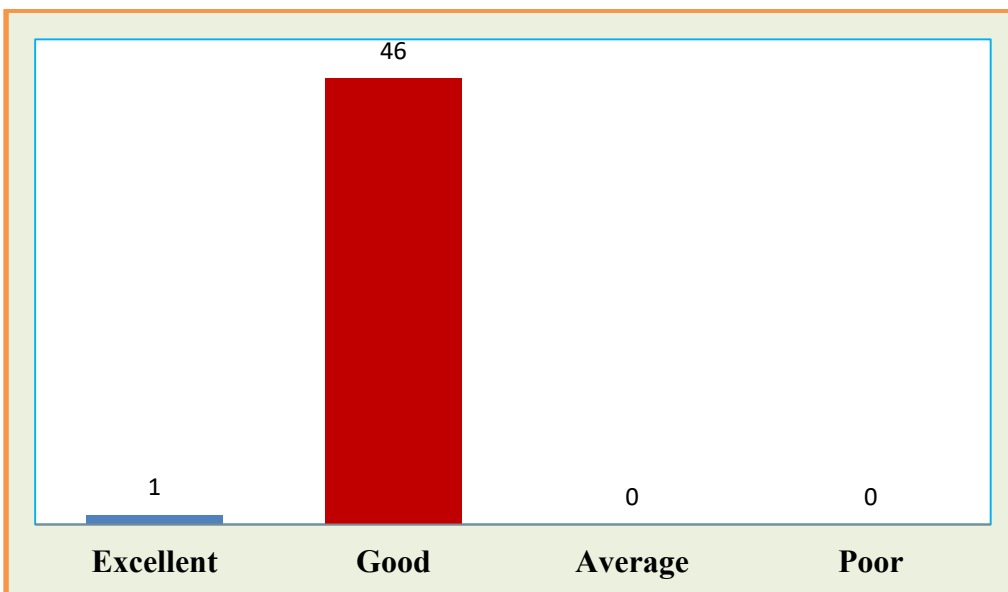


**Feed-Back Analysis:**

**Dr. P. AdaviRaju:**



**Sri K.Venkateshwarlu:**



### **Career Guidance Programme for “Higher Education in Chemistry”**

Department of chemistry has organized career guidance programme for Higher education in Chemistry for the final year students of B.Sc. Chemistry on 20.07.2022. Dr. D.Karunakar, Asst. Professor of Chemistry, Government Degree College, Sadasivpet was acted as the resource person for this programme. In this programme 35 students of B.Sc. Chemistry of Final year have participated.

#### **Objective of the programme:**

To help the students understand career development with higher education in Chemistry as a whole which will help them to grow and prosper in their lives.

#### **Context of the Programme:**

The fundamental science of chemistry has an effect on everything in our environment.

Chemists are comparable to magicians in that they possess the knowledge to transform matter into truly amazing and occasionally strange smelling things. While some of them monitor the damaged ozone layer, others work to treat cancer and other disorders. Others create novel textiles or new materials with novel qualities. Because it unifies mathematics, physics, and environmental science, chemistry is frequently referred to as the central science. It is the understanding of the characteristics of chemical reactions and substances in relation to biological and physical occurrences. Chemistry provides a foundation for comprehending the universe we live in, thus understanding it is crucial. In this context the career guidance programme for Higher education in Chemistry organized to provide awareness to choose proper course in post graduate in Chemistry and to decide proper path of preparation for Post-graduate entrance tests.

**About the Resource person:**

**Dr. D.Karunakar** has completed his Masters in Chemistry from Osmania University and Ph.D. form in Chemistry from Kakatiya University, Warangal. He has 20 years of teaching and research experience. Under his guidance Eight (8) scholars have completed their Ph.D. programme. He has completed minor research project sanctioned by UGC and published 28 research papers in national & international journals. His research interest is in the field of Organic synthesis and Heterocyclic chemistry. He had been served as master trainer for Value education and Professional Ethics.

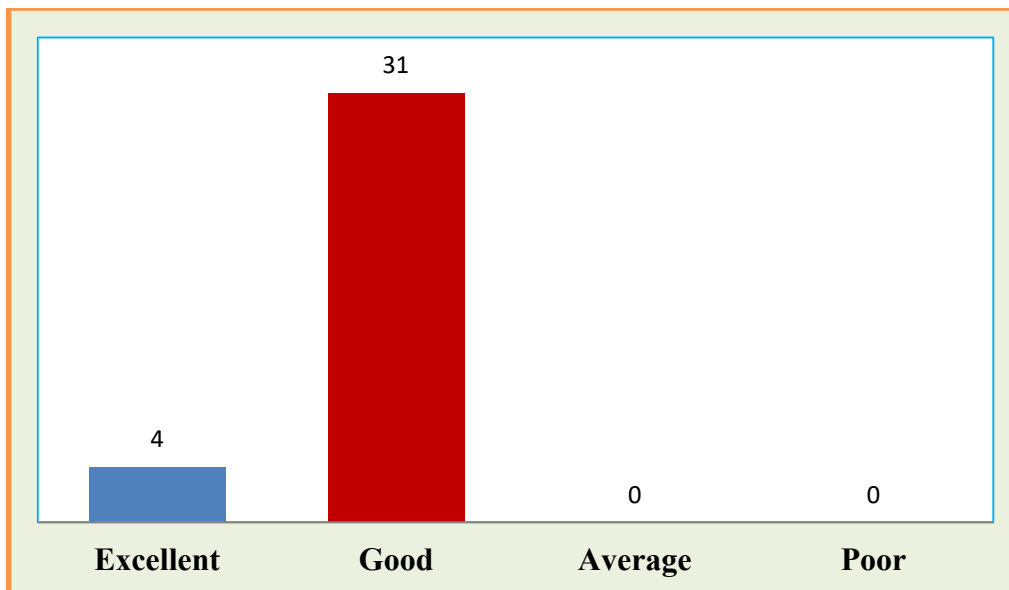
**Key points focused:**

- Various courses in M.Sc. Chemistry
- Importance and career opportunities of various branches of M.Sc. Chemistry
- Strategies for the preparation of M.Sc. Chemistry entrance examinations
- Important concepts and topics of M.Sc. Chemistry entrance examinations Syllabus
- Books for the preparation of M.Sc. Chemistry entrance examinations
- Funding and Scholarship providing schemes





**Feed-Back Analysis:**



**Report of National Webinar “Restore Our Earth”**

Department of Chemistry, Tara Government College, Sangareddy (A) in collaboration with Eco-Club, Tara Government College, Sangareddy (A) has organized National Webinar on “Restore Our Earth” on the occasion of World Earth Day-2021 on **22.04.2021**. **K.Kanaka DurgaPrasad, Lecturer in Geology**, Nagarjuna Government College (A), Nalgonda, Telangana was acted as resource person for the Webinar. A cloud-based peer-to-peer software platform, Zoom was used for the Webinar. The Webinar mainly focused to discuss on natural processes, emerging green technologies, and innovative thinking that can restore the world’s ecosystems. Around **71** Students and Faculty members have participated in the webinar from various parts of the India.

**Convener of the Webinar:** **K.Sugunavathi**, *Convener, Eco-club, Tara Government College, Sangareddy(A)*.

**Co-convener of the Webinar:** **Dr.S.Vijaya Gaikwad**, *Head, Department of Botany, Tara Government College, Sangareddy(A)*.

**Organizing Secretary of the Webinar:** **K.Abhijit**, *Head, Department of Chemistry, Tara Government College, Sangareddy (A)*.

### About the Resource person:

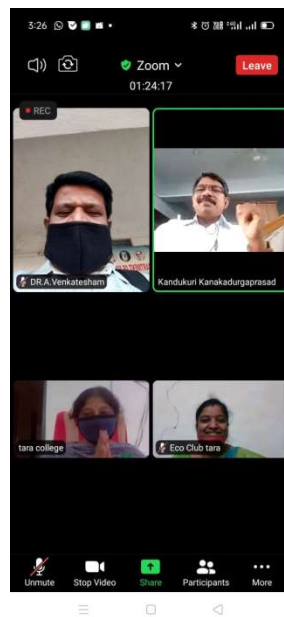
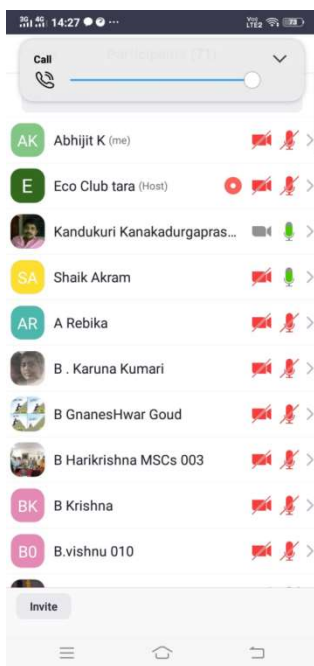
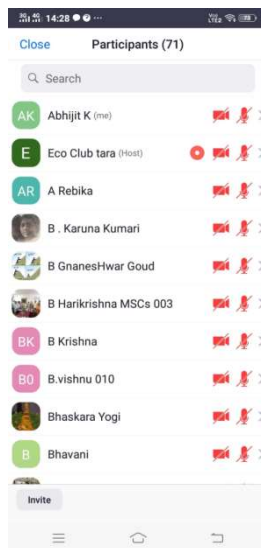
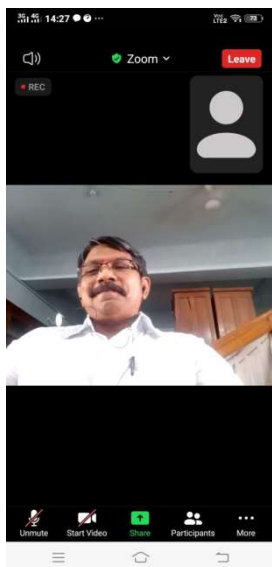


K.Kanaka DurgaPrasad obtained Masters degree in Geology and Geo-Chemistry from Osmania University, Hyderabad. He has Vast Teaching experience of 19years and he has acted as a Chief Resource Person for District Training Center in Collectorate concerned to Disaster Management Board-Nalgonda District. His research interest is analysis of Geo-chemical samples.

### Key points Discussed in the Webinar:

- Geo-Chemical composition of the eco system.
- Human impact on eco system.

- Global warming.
- Climate change.
- Sustainable strategies to restore our earth.






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[tara.sangareddy@gmail.com](mailto:tara.sangareddy@gmail.com)

**Eco-Club & Department of Chemistry**

Cordially invites you for "National Webinar"  
 on

**"Restore Our Earth"**

on the occasion of World Earth Day-2021

By

**K.Kanaka DurgaPrasad**  
 LECTURER IN GEOLOGY  
 Nagarjuna Government College (A),  
 Nalgonda  
 Telangana

On Thursday, 22-04-2021 at 2:00PM

**Platform**


Click the below link for Registration

<https://forms.gle/JbwuR2eVRsaDQCEDA>

Meeting ID: 906 780 5398

Passcode: ecoclub

**ABOUT K. KANAKA DURGAPRASAD**


*K.Kanaka DurgaPrasad obtained Masters degree in Geology and Geo-Chemistry from Osmania University, Hyderabad. He has Vast Teaching experience of 19years and he has acted as a Chief Resource Person for District Training Center in Collectorate concerned to Disaster Management Board-Nalgonda District. His research interest is analysis of Geo-chemical samples.*

**Patron**

**M.Praveena**

Principal

Tara Govt. College, Sangareddy(A)

**Convener**

**K.Sugunavathi**

Asst. Professor of Zoology  
 & Eco-Club Convener

**Co-Convener**

**Dr.S.Vijaya Gaikwad**

Asst. Professor of Botany

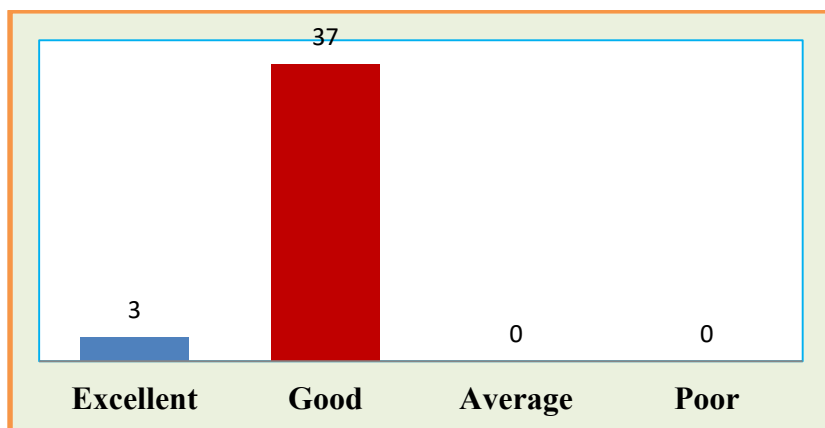
**Organizing Secretary**

**K. Abhijit**

Head, Department of Chemistry  
 Tara Govt. College, Sangareddy(A)

**Organizing Members**

Members of Eco-Club & Faculty of Department of Chemistry  
 Tara Govt. College, Sangareddy(A)

**Feed-Back Analysis:**


**Report of International Invited Lecture & Interactive Talk  
“SMALL IS BIG: THE BIG IMPACT OF SMALL RIBONUCLEIC  
ACIDS IN BIOMEDICAL RESEARCH”**

Department of Chemistry, Tara Government College, Sangareddy (A) in collaboration with Department of Chemistry, Girraj Government (A) College, Nizamabad has organized **International Invited Lecture & Interactive Talk** on “**Small Is Big: The Big Impact Of Small Ribonucleic Acids In Biomedical Research**” on **20.04.2021**. **Dr. Shabana Shaik**, **Department of Neurobiology, The University of Chicago, Chicago, IL-60637, USA** was acted as resource person for the Webinar. A cloud-based peer-to-peer software platform, Zoom was used for the Webinar. The Webinar mainly focused on Biomedical research applications and emerging trends of Small Ribonucleic acids. Around **173** Students, Faculty and Researchers have participated in the lecture from various parts of the India.

**Convener of the Programme:** **Dr. Md. Abdur Rafeeq**, *Head, Department of Chemistry, Girraj Government (A) College, Nizamabad.*

**Co-convener of the Programme:** **K.Abhijit**, *Department of Chemistry, Tara Government College, Sangareddy (A).*

**About the Resource person:**



**Dr. Shabana Shaik** received her master’s degree in Biochemistry from Sri Krishnadevaraya University, Anantapur, India. She started her research career at National Centre for Biological Sciences (NCBS)-TIFR, Bangalore and received her PhD. in Chemistry from University of Chicago, for her work on RNA Splicing under the guidance of Prof. Yamuna Krishnan. She is currently a postdoctoral scholar at the department of Neurobiology, University of Chicago, US. Her research is to investigate the role of gut microbiome on neuroimmune modulation in Alzheimer’s disease using mice models. She holds a deep passion for nucleic acid-based diagnostics and therapeutics and

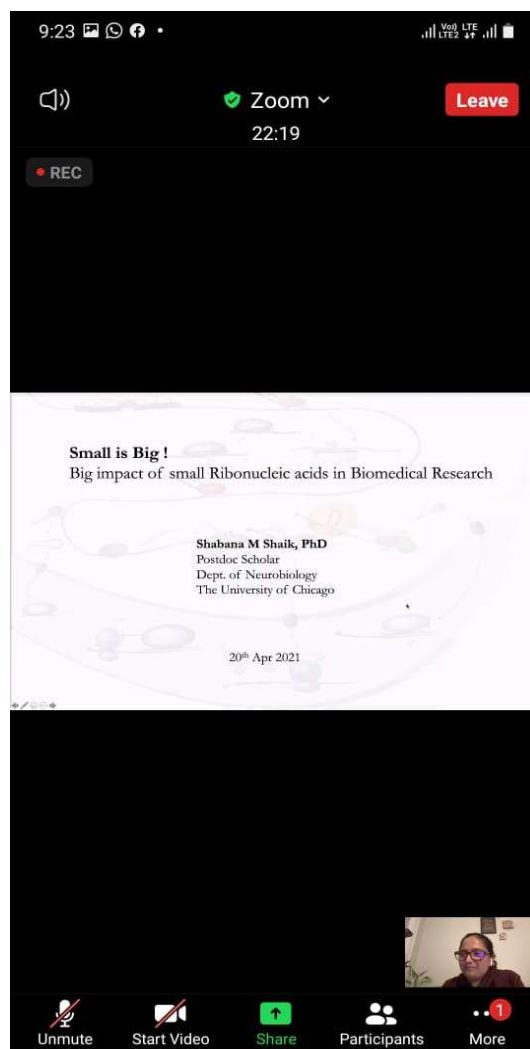
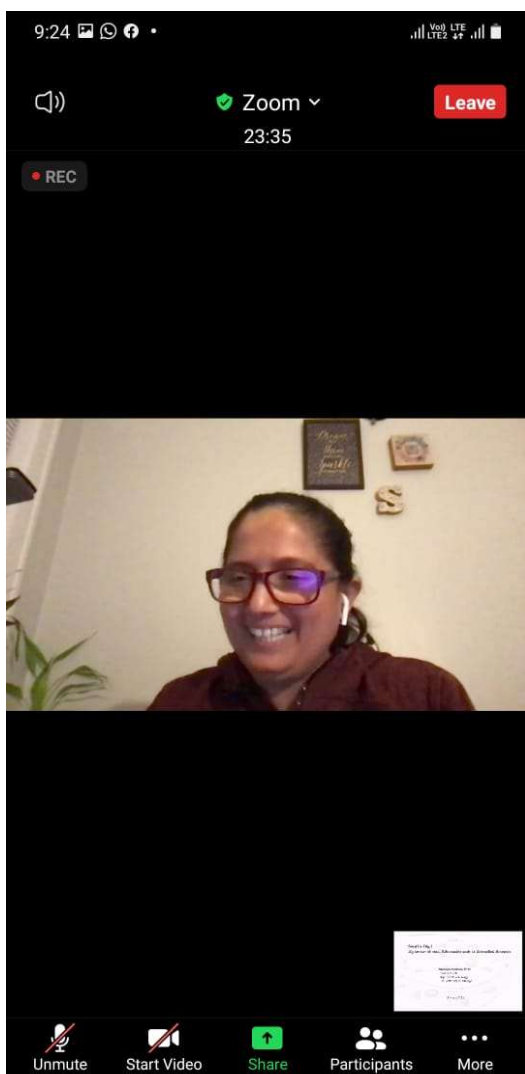
visions a world where RNA technologies would provide innovative and potentially transformative approaches to the development of treatment regimens to neurodegenerative diseases.

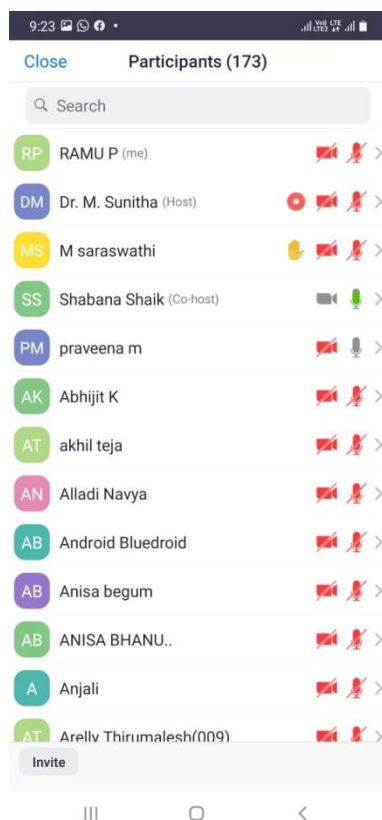
Shabana was involved in undergraduate teaching at St. Joseph's Degree College, Kurnool. She has served as a mentor and science educator at Arman Academy, Naperville, Chicago and as a member of Science and Research Opportunities in India (Sci-ROI), a non-profit that promotes scientific and technological exchange between India and the US. She is the chair for seminar committee, Biological Sciences Division, Postdoc Association and member of Chicago women in STEM and is active in fostering young women in science.

### **Key points Discussed in the Webinar:**

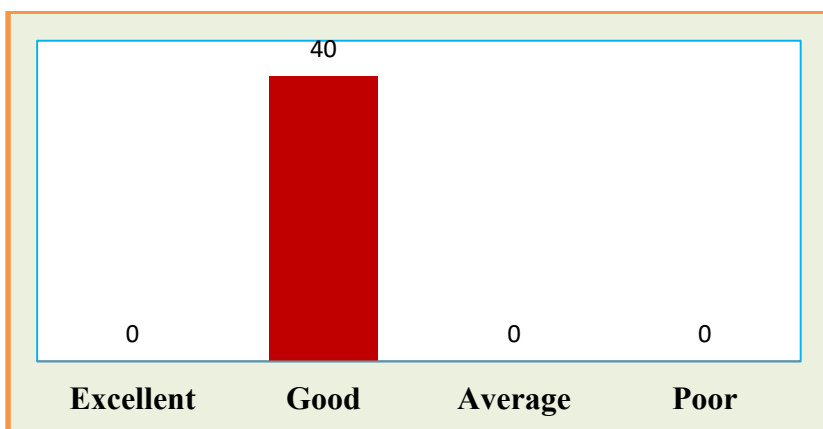
- Small RNAs in cell differentiation.
- Small RNAs in cell growth/proliferation.
- Small RNAs in cell migration.
- Small RNAs in cell death and apoptosis.
- Small RNAs in cell metabolism and cell defense
- Small RNAs in cardiac development
- Small RNAs in early embryonic development
- Small RNAs in cell metabolism and cell defense
- Small RNAs in cardiac development
- Small RNAs in neuronal development
- Small RNAs in germline development
- Small RNAs in cancer
- Small RNAs in cardiovascular disease
- Small RNAs in stroke and neurodegenerative disease

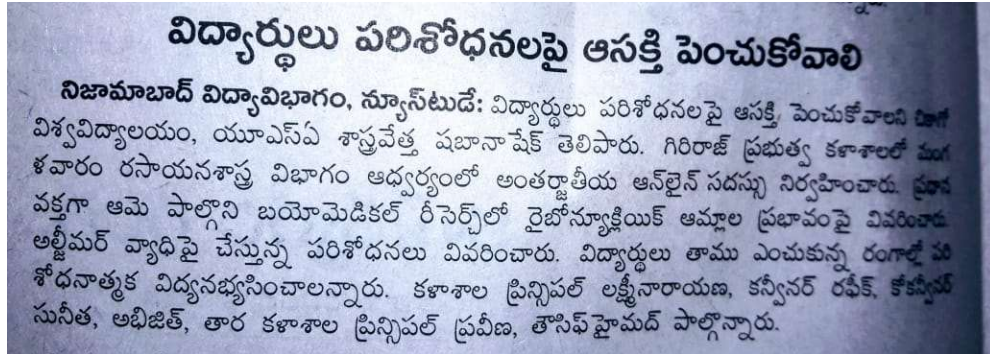
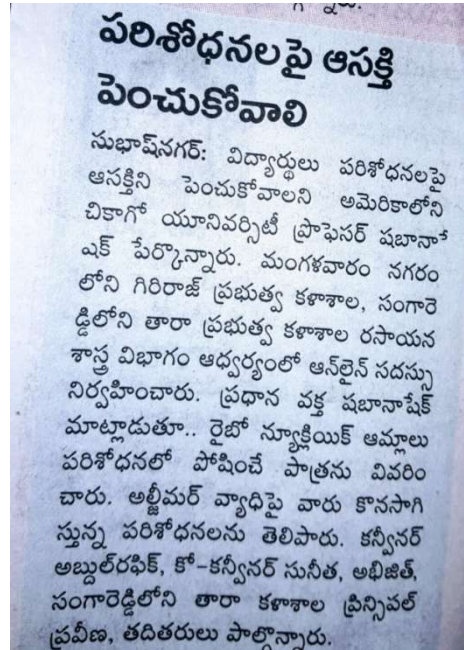
- Small RNAs in diabetes
- Small RNAs in liver disease
- Small RNAs in infectious diseases
- The use of small RNAs in diagnosis
- Small RNAs in therapy





### Feed-Back Analysis:



**PRESS COVERAGE****ఈనాడు****నమస్తే తెలంగాణ**

మన పత్రిక మన ఆళ్లగారం

**Report of National Webinar on**

## “Entrepreneurship-Opportunities through Research in Science”

Department of Chemistry, Tara Government College, Sangareddy (A) in collaboration with Department of Chemistry, Girraj Government (A) College, Nizamabad and EDC, Tara Government College, Sangareddy (A) has organized Webinar on “**Entrepreneurship-Opportunities through Research in Science**” on 03.04.2021. **Dr. Praveen Vemula, inStem, Bangalore** was acted as resource person for the Webinar. A cloud-based peer-to-peer software platform, Zoom was used for the Webinar. The Webinar mainly focused on Entrepreneurial aspects of students to sensitize their skill development and Career in the research field. Around 145 Students, Faculty and Researchers have participated in the webinar from various parts of the India.

**Convener of the Webinar: Dr. Md. Abdur Rafeeq**, Head, Department of Chemistry, Girraj Government (A) College, Nizamabad.

**Co-convener of the Webinar: K.Abhijit**, Head, Department of Chemistry, Tara Government College, Sangareddy (A).

### About the Resource person:



Dr. Praveen Vemula is a faculty at inStem, Bangalore, and he is a co-founder of three companies. He holds 25 issued or pending patents/technology disclosures. Multiple patents of his have been licensed to biotech companies. He has published over 60 peer-reviewed papers, 16 abstracts and two book chapters. Nine of his research papers were appeared as the cover page articles.

Praveen obtained masters (M.Sc., Org. Chem.) degree from Osmania University, Hyderabad and Ph.D. from Indian Institute of Science, Bangalore in Organic Chemistry (2005). Subsequently he carried out over two years of postdoctoral research at the City College of New York and over four years at Harvard-MIT Division of Health Sciences and Technology in Harvard Medical School in affiliation with Brigham and Women's Hospital. In 2009, he has been selected as one of the thirteen fellows in the USA for the prestigious entrepreneur fellowship from the Ewing Marion Kauffman Foundation, where he received exposure to entrepreneurial education and closely worked with the foundation to commercialize the biomedical technologies. In addition to developing platform technologies, Praveen is seeking opportunities to translate them through active patenting and subsequently exploring the possibility to license them to biotech companies or by

forming spin-off companies.

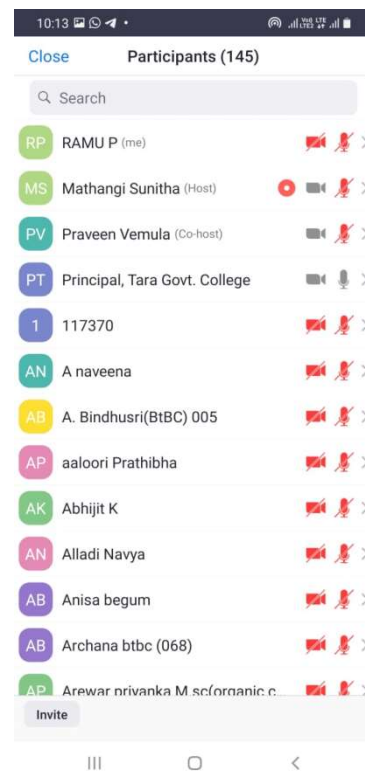
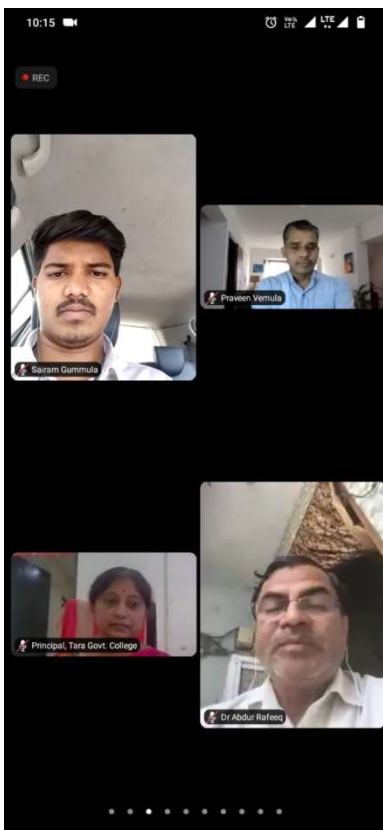
His research was recognized/highlighted in the national and the international press and media including The Hindu, Deccan Herald, The Times of India, CNN, Nature, Nature Materials, Nature Nanotechnology, The New York Times, Newsweek, Chemical & Engineering News, Scientific American, Materials Research Society, Materials Today, American Chemical Society, United Press International, Nanotechnology News, Nanowerk, Green Chemistry Network, National Science Foundation and National Institute of Health.

*(Courtesy: orcid.org)*

### **Key points Discussed in the Webinar:**

- Concept of entrepreneurship.
- Scope of Scientific Research in entrepreneurship.
- Road map for innovation to product in market.
- IPR in Medicinal research.
- Entrepreneurial opportunities in Medicinal research.
- Self-assembled prodrug-based nanomaterials.
- Next Generation Biomaterials in Medicinal Chemistry.
- Degree of patent in scientific discoveries.
- Patent filing-protection.
- Role of publications in filing strong patents.
- Career in Medicinal Chemistry.





## PRESS COVERAGE

విద్యార్థులు పాల్గొన్నారు. గిరిరాజ్ కళాశాలలో జాతీయస్థాయి వెబినార్ సుభాష్‌నగర్: నగరంలోని గిరిరాజ్ ప్రభుత్వ కళాశాలలో రసాయనశాస్త్ర, వ్యవస్థాపక అభివృద్ధి విభాగం, సంగారెడ్డిలోని తారా ప్రభుత్వ కళాశాల సంయుక్తాధ్వర్యంలో ఎంటర్ప్రెన్యూర్షిప్ ఆపర్చునిటీస్ త్రో రీసెర్చ్ ఇన్ సైన్సెస్ అనే అంశంపై జాతీయస్థాయి వెబినార్ నిర్వహించారు. ప్రధాన వక్తగా విచ్చేసిన ప్రాఫెసర్ ప్రవీణ్‌కుమార్ మాట్లాడుతూ వ్యవస్థాపకతతో విజయాన్ని సాధించాలంటే సమాజానికి ఉపయోగపడే అంశాన్ని ముందుగా గుర్తించాలన్నారు. వెబినార్లో కళాశాలల ప్రిన్సిపాల్స్ లక్ష్మీనారాయణ, ఎం ప్రవీణ, వెబినార్ కన్వీనర్ అబ్దుర్ రఫీక్, హెచ్‌ఓటీలు ఎం సునీత, అభిజిత్, తదితరులు పాల్గొన్నారు.



### Report of Online Lecture and Interactive talk on “Impact of Water chemistry on Life”

Department of Chemistry, Tara Government College, Sangareddy (A) has organized ONLINE Lecture and Interactive talk on “**Impact of Water chemistry on Life**“ on the occasion of World Water Day-2021 on **23.03.2021**. **Dr. A.DAYANAND**, Assistant Professor of Chemistry, Government City College, Hyderabad, Telangana was acted as resource person for the Webinar. A cloud-based peer-to-peer software platform, Zoom was used for the lecture. The Lecture mainly focused on importance of water chemistry in life and sustainable practices of water conservation. Around **65** Students and Faculty have participated in the webinar from various parts of the State.

**Convener of the Program: K.Abhijit**, Head, *Department of Chemistry, Tara Government College, Sangareddy (A).*

**About the Resource person:**

Dr. A. Dayanand obtained Masters (M.Sc., Chemistry.) degree and Ph.D. from Osmania University, Hyderabad. His research interest is DNA binding studies with Medicinal importance. He has several international peer-reviewed research papers and attended more than 50 seminars/conferences. He has been an author for several academic books. He has been supervised the Student research project on water chemistry which has won JIGNASA-State Level First Prize in 2019.

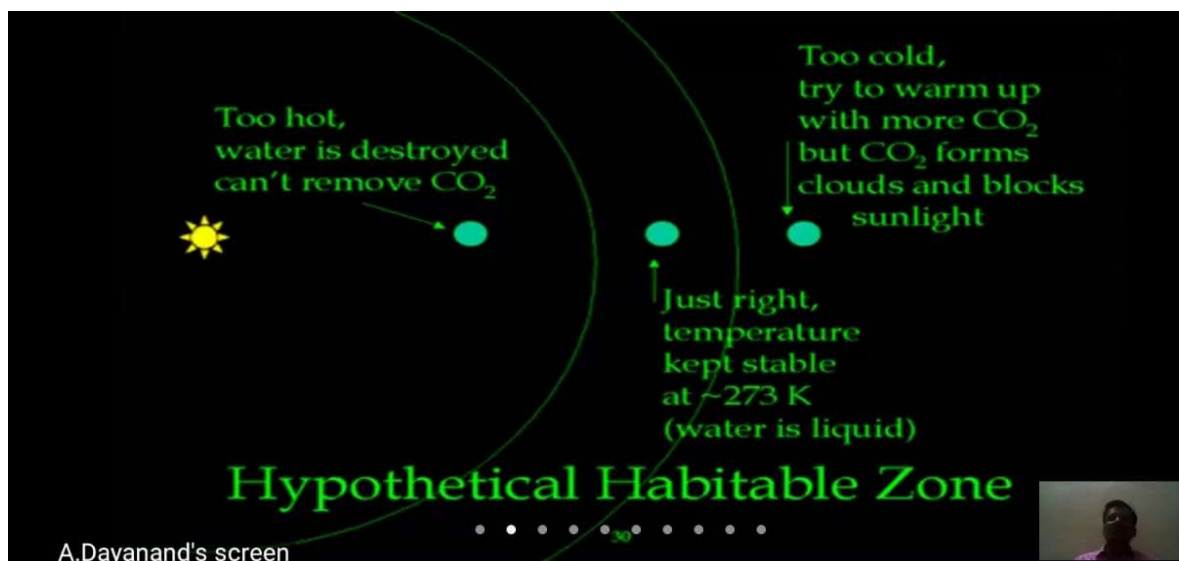
**Key points Discussed in the Lecture:**

- Composition of Water.
- Existence of Blue Planet.
- Concept of “Virtual Water”.
- Global water crisis.
- Impact of water chemistry on life.
- Sustainable Water conservation practices.

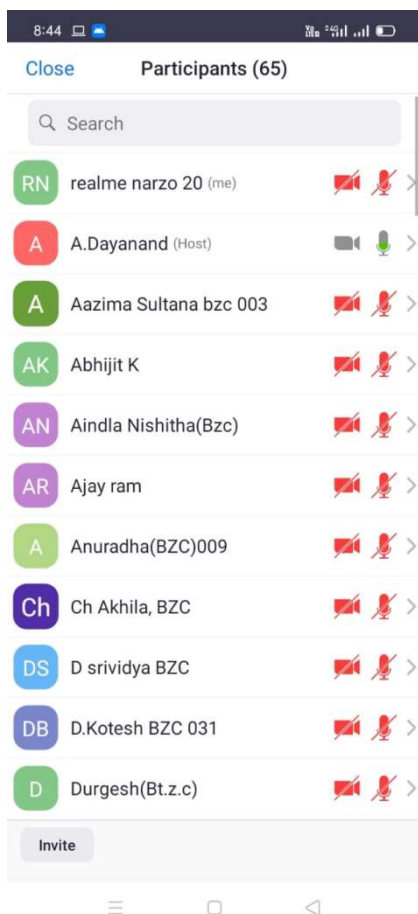
**Earth - The Blue Planet**

- It is also known as watery planet, because 70% of its surface is covered by water.
- It reflects about 1/3<sup>rd</sup> of sunlight it receives. The earth's atmosphere scatters the light & creates a blue effect, so it is also called Blue Planet..

Only planet having life ... 2



A.Dayanand's screen



**TARA GOVERNMENT COLLEGE SANGAREDDY (A)**  
 (Re-Accredited 'B' by NAAC)  
 DISTRICT: SANGAREDDY, TELANGANA  
 PIN CODE: 502001, Ph: 08455-276507  
[www.tarascd.org.in](http://www.tarascd.org.in)  
[tara.sangareddy@gmail.com](mailto:tara.sangareddy@gmail.com)

**Department of Chemistry**

Cordially invites you for an online Lecture and Interactive talk on

**"Impact of Water chemistry on Life"**  
 on the occasion of World Water Day-2021

By  
**Dr. A.DAYANAND**  
 ASSISTANT PROFESSOR OF CHEMISTRY  
 Government City College,  
 Hyderabad  
 Telangana

On Tuesday, 23-03-2021 at 8:30 PM

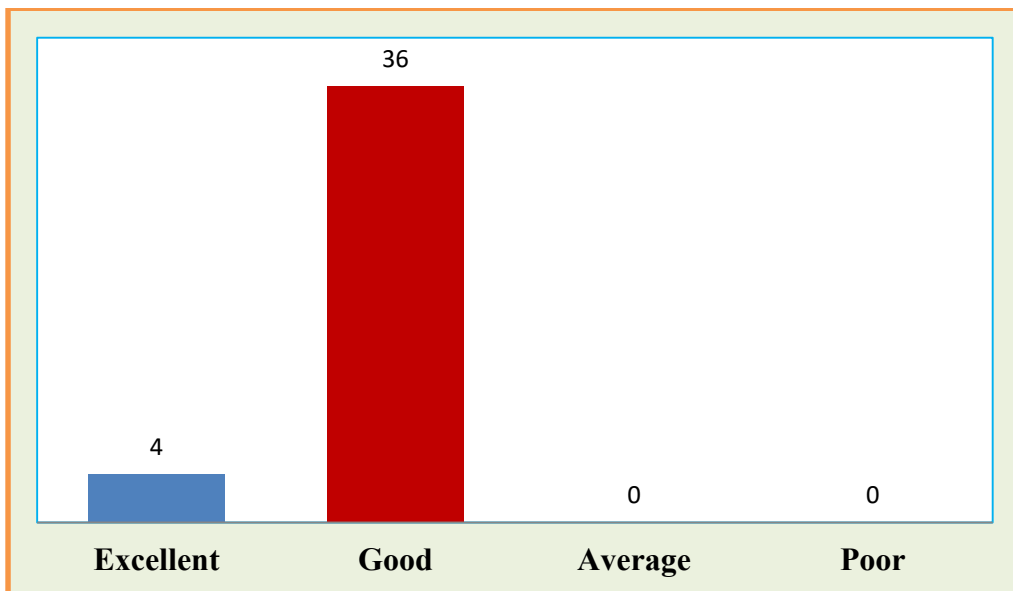
Platform

Click the below link to join the zoom meeting  
<https://zoom.us/j/96788252983?pwd=d9bVR4>

Meeting ID: 967 8825 2983  
 Passcode: d9bVR4

**About Dr. A. Dayanand**

Dr. A. Dayanand obtained Masters (M.Sc., Chemistry.) degree and Ph.D. from Osmania University, Hyderabad. His research interest is DNA binding studies with Medicinal importance. He has several international peer-reviewed research papers and attended more than 50 seminars/conferences. He has been an author for several academic books. He has been supervised the Student research project on water chemistry which has won JIGNASA-State Level First Prize in 2019.

**Feed-Back Analysis:**

## Report of Lecture and Interactive talk on

### “Paper Chromatography”

Department of Chemistry, Tara Government College, Sangareddy (A) has organized Lecture and Interactive talk on “**Paper Chromatography**” on **02.03.2021**. **Mr. Saleem Pasha**, Assistant Professor of Chemistry, Government Degree College (A), Siddipet, Telangana was acted as resource person for the Lecture and Interactive Talk as part of curricular enrichment. The Lecture mainly focused on Concept and methodology of Paper chromatography. Around **40** Students of B.Sc. (CHEMISTRY)-III year have participated in the Lecture.

**Convener of the Program: K.Abhijit**, Head, *Department of Chemistry, Tara Government College, Sangareddy (A)*.

### About the Resource person:



**Md.Saleem Pasha** obtained Masters (M.Sc., Chemistry.) degree and M.Phil., from Osmania University, Hyderabad. His research interest is **the electronic structure of Cephapirin-enol form**. He has several international peer-reviewed research papers and attended more than 10 seminars/conferences. He has been the **Coordinator for One day National Seminar on “Technological Advances in Chemical Sciences” on 19<sup>th</sup> March 2019**.

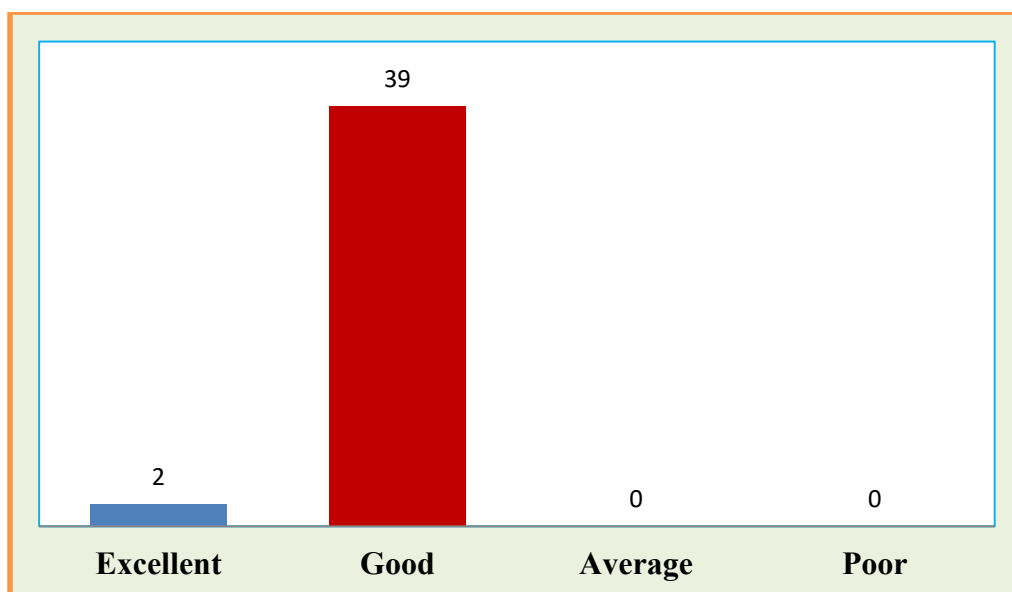
### Key points Discussed in the Lecture:

- Concept of Partition chromatography.
- Methodology of Paper chromatography.
- Different types of Paper chromatographic techniques.

- Biochemical applications of Paper chromatography.
- Forensic applications of Paper chromatography.
- Organic synthetic applications of Paper chromatography.



### Feed-Back Analysis:

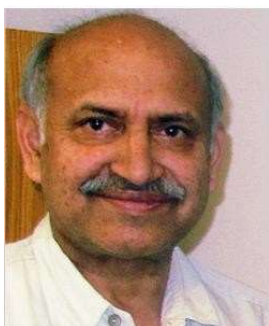




**Invited International Lecture****on****“Mixed oxides & Nano composites as Catalysts for value added synthesis and water synthesis”**

Department of Chemistry, Tara Government College, Sangareddy (A) has organized Invited International Lecture on “**Mixed oxides & Nano composites as Catalysts for value added synthesis and water synthesis**” on 27.12.2019. Prof. S.B. Jonnalagadda, Senior Professor, University of KwaZulu-Natal, Durban (UKZN) South Africa, was acted as resource person for the Webinar. The lecture focused mainly on the mixed oxides as catalysts in synthesis of different novel heterocyclic scaffolds by MCR strategy. The lecture comprised the recent contributions in developing different catalyst materials involving mixed oxides and their scope as renewable catalysts in multicomponent reactions to synthesize various novel heterocyclic scaffolds under green conditions. The application of various mixed oxides and their composites in the organicsynthesis are emphasized through this lecture, in order to reveal the versatility, scope and importance of mixed oxides and their interactions during the reaction. It has also briefed the limitations of mixed oxides as catalysts, to put forward the broader prospective in the field. Around 100 Students and Faculty have participated in the invited lecture.

**Convener of the invited Lecture:** K.Abhijit, Department of Chemistry, Tara Government College, Sangareddy (A).

**About the Resource person:**

Prof. Jonnalagadda obtained Masters (M.Sc., Chemistry.) degree and Ph.D. from Vikram University, Ujjain in Physical Chemistry (1973). Subsequently he had been worked as Research Associate (DFG) at University of Bonn, Bonn, Germany for three years. He had been worked at various positions in university of University of Nairobi, Nairobi, Kenya (1986-1989), University of Zimbabwe, Harare, Zimbabwe (1989-1993), University of Durban-Westville, Durban, South Africa (1995-2002) and University of KwaZulu-Natal, Durban (UKZN) South Africa (from 2002). He has a 50years of vast research experience.

Prof. Jonnalagadda’s research interests are in the fields of Kinetics & Elucidation of reaction mechanisms, Computer modelling & simulations, Catalysis, Water Chemistry and

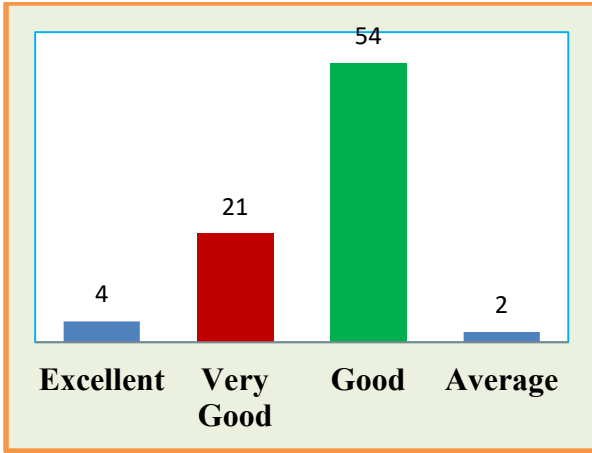
Atmospheric Chemistry. He has published over 240 research papers in International Refereed Journals and attended more than 100 International Conferences in 40 different countries.

### Key points Discussed invited Lecture:

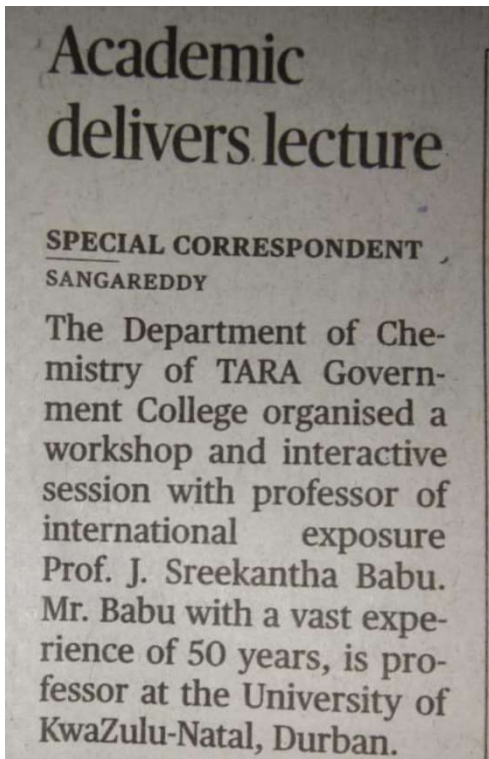
- The new synthetic approaches for multicomponent reactions (MCRs) to design and synthesize heterocyclic scaffolds with diversity and atom economy.
- The surface properties of the material in heterogeneous Catalysis.
- Metal oxide mediated heterogeneous catalysis using the metal oxide surface having metal cation ( $M^{n+}$ ), oxy anion ( $O^{2-}$ ) and  $OH^-$  groups.
- The surface properties of the metal oxides.
- The synergetic effect between the active material and the support in the catalysis.
- The catalytic activity of mixed oxides.
- The synergistic effect of the oxides of active metal and support.
- Different preparation methods of mixed oxides
- The characterization of mixed oxides using SEM, TEM to understand their morphology, BET to understand their surface properties, XRD for the phase formation and XPS, FT-IR and Raman spectra for structural evaluation.
- Water synthesis.



FEEDBACK ANALYSIS:



PRESS COVERAGE



పరిశోధనలపై దృష్టి సారించాలని పిలుపు

సంగారెడ్డి టౌన్, న్యూస్ టుడే: పరిశోధనలపై విద్యార్థులు దృష్టి సారించాలని దక్షిణాఫ్రికాకు చెందిన ఓ యూనివర్సిటీ ప్రొఫెసర్ శ్రీకాంత్ బాబు పిలుపునిచ్చారు. శుక్రవారం తారా ప్రభుత్వ డిగ్రీ కళాశాలలో మిక్స్డ్ ఆక్షెస్స్, నానో కంపోజిట్స్ యాజ్ కాటలిస్ట్స్ ఫర్ వ్యాల్యూ యాడెడ్ సింథెసిస్ అండ్ వాటర్ సింథెసిస్ అన్న అంశంపై నిర్వహించిన సదస్సులో ఆయన మాట్లాడారు. విద్యార్థి దశ నుంచే శాస్త్రీయ దృక్పథాన్ని అలవర్చుకోవాలన్నారు. అనంతరం విద్యార్థుల సందేహాలను నివృత్తి చేశారు. కార్యక్రమంలో కళాశాల ప్రిన్సిపల్ చంద్రముఖర్జీ, తెలంగాణ యూనివర్సిటీ ప్రొఫెసర్ వాసం చంద్రశేఖర్, రసాయన విభాగాధిపతి అభిజిత్, అధ్యాపకులు పాల్గొన్నారు.




సదస్సులో మాట్లాడుతున్న ప్రొఫెసర్ శ్రీకాంత్ బాబు



ఈనాడు

ఆధునిక రసాయన శాస్త్రంపై

## నేడు తారాలో అవగాహన



సంగారెడ్డి చొరస్టా: ఆధునిక రసాయన శాస్త్రంపై ఈ నెల 27న మధ్యాహ్నం 12 గంటలకు కళాశాలలోని సెమినార్ హాల్‌లో విద్యార్థులకు అవగాహన కల్పించనున్నట్లు స్థానిక తారా ప్రభుత్వ డిగ్రీ, పీజీ ఆటోనమస్ కళాశాల ప్రిన్సిపాల్ డాక్టర్ చంద్రముఖర్జీ తెలిపారు. డాక్టర్ ఆప్రికా డర్బన్‌లోని యూనివర్సిటీ ఆఫ్ క్యూజులు నటల్ సీనియర్ ప్రొఫెసర్ శ్రీకాంతాబాబు జొన్న లగడ్డ ముఖ్య అతిథిగా హాజరుకానున్నారుని పేర్కొన్నారు. 'మిక్స్డ్ ఆక్సైడ్స్ ఆండ్ నానో కంపోజిట్స్ యాన్ క్యాటలిస్ట్స్ ఫర్ వాల్యూ యాడేడ్ సింథెసిస్ ఆండ్ వాటర్ సింథెసిస్' అనే అంశంపై విద్యార్థులకు అవగాహన కల్పిస్తారని వివరించారు.

ప్రాఫెసర్ శ్రీకాంతాబాబు జొన్న లగడ్డ

Fri, 27 December 2019  
<https://epaper.ntnews.com/c/47331000>

# నమస్తే తెలంగాణ

మన పత్రిక మన అభ్యుదయం

## Lecture on Preservation of the Ozone Layer

By

**Dr. B.V. Bhadragirish,**

**Environmental Engineer,**

**Pollution Control Board, Sangareddy District.**

**Dr. Bhadragirish** has delivered a valuable lecture on Preservation of Ozone Layer and role of students in Environmental sustainability. He emphasized the following points in his lecture;

- ✓ *Avoid the purchase and use of aerosol sprays containing chlorofluorocarbons (CFCs).*
- ✓ *Avoid the use of fire extinguishers with halogenated hydrocarbon, a substance being very aggressive to the ozone layer.*
- ✓ *Avoid buying insulating material made from CFC. Instead, you can use the dark chipboard cork that do not pollute the environment for the same purpose.*
- ✓ *Keep clean the air con*
- ✓ *Check the freezer and the car air-conditioning. If they malfunction, need repairing soon, because they may leak.*
- ✓ *Buy a refrigerator or air conditioner which is CFC-free .*

**Some other statements given by Dr. Bhadragirish includes:**

- Reduce the use of your car and of other gadgets like compressors, lawn mowers, etc.
- Use alternative means of transport: buses, bicycles, or simply walk.
- Reduce the use of heating and air-conditioning.
- Buy energy saving gadgets and bulbs. You will reduce levels of pollution and money.

He concluded his speech by saying, “Each of us can help protect the environment. Before demanding politicians to implement policies to protect the ozone layer, we must start doing something for the environment”.



*Dr. Bhadragirish* delivering lecture on Preservation of Ozone Layer and role of students in Environmental sustainability.





**Felicitation to Dr. Bhadragirish, Chief Guest of the program by the Department of Chemistry.**

## **PRESS COVERAGE:**



# ఓజోన్ పారను కాపాడుకోవాలి

తారా కళాశాలలో ఘనంగా ఓజోన్ డే

సంగారెడ్డి చౌరస్తా: పర్యావరణ పరిరక్షణ కోసం ఓజోన్ ను కాపాడు కోవాల్సిన భాద్యత అందరిపై ఉన్నదని జిల్లా పర్యావరణ కార్యనిర్వాహక అధికారి డాక్టర్ బీవీ భద్రగిరిశ్ పేర్కొన్నారు. శనివారం స్థానిక తారా ప్రభుత్వ డిగ్రీ, పీజీ అటానమస్ కళాశాల రసాయన శాస్త్ర విభాగం ఆధ్వర్యంలో ప్రపంచ ఓజోన్ దినోత్సవాన్ని ఘనంగా నిర్వహించారు. కార్యక్రమానికి ముఖ్య అతిథిగా హాజరైన ఆయన



మాట్లాడుతున్న అధికారి డాక్టర్ బీవీ భద్రగిరిశ్

విద్యార్థులనుద్దేశించి ప్రసంగించారు. మానవాళిని హానికర అతినీల లోహిత కిరణాల నుంచి ఎల్లవేళలా

కాపాడుతున్న ఓజోన్ ప్రాధాన్యతను వివరించారు. రసాయనాలపై అవగాహన పెంచుకోవాలని సూచించారు. రసాయనశాస్త్ర విభాగాధిపతి అభిజిత్ మాట్లాడుతూ పర్యావరణానికి మనం కలిగించే హాని తిరిగి చిట్టచివరకు మనకే చేరుతుందని పేర్కొన్నారు. అనంతరం ఓజోన్ పరిరక్షణపై నిర్వహించిన వక్రత్వ, వ్యాసరచన పోటీల విజేతలకు బహుమతులను అందజేశారు. కార్యక్రమంలో కళాశాల ప్రిన్సిపాల్ డాక్టర్ చంద్రముఖర్జీ, అధ్యాపకులు శ్రావణి, రవి, మనోజ్, రతన్, రాంబాబు, సుగుణపతి కరుణ పాల్గొన్నారు.

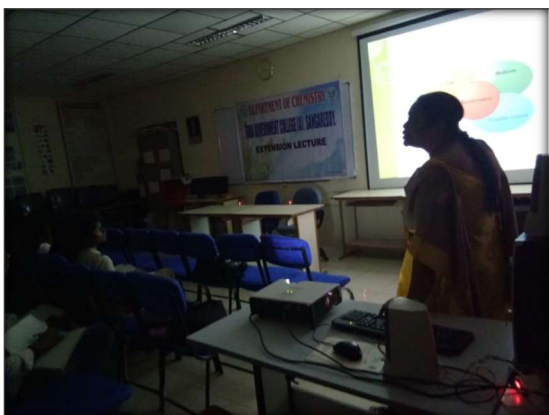


బహుమతి పొందిన విజేతలు, అధ్యాపకులతో భద్రగిరిశ్

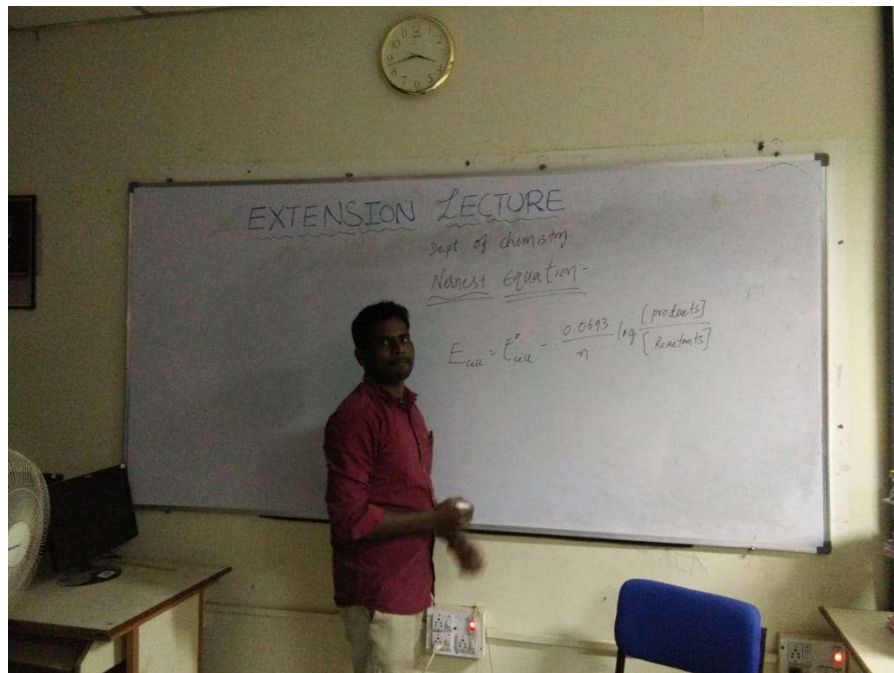




Extension lecture on Preservation of the Ozone Layer by Dr. B.V.Bhadra Girish, Environmental Engineer, Pollution Control Board, Sangareddy District.



Extension lecture on Molecular Docking by Dr. Sabitha.Y, Managing Director & Chief Scientist from Ciencia Life Sciences, Hyderabad



Extension lecture on Electro Chemistry by Ramesh, Research Scholar, IIT-Hyderabad.



Extension lecture on Carbohydrates by Smt. I.Vani Reddy, Asst. Professor, GDC-Kukatapally.