



# CATALYST

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**January 2024**

**Chemistry News Letter**

**Volume: 07 Issue: 01**

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## **STUDENTS ACHIEVEMENTS**

### **T. Y. B. Sc. students' performance at Goa University Admission Ranking Test (GU-ART)**

Th students M Ruveen, ranked 2<sup>nd</sup>; Alic Carvalho, ranked 13<sup>th</sup>; Gopal Dnyaneshwar Sawant Gaonkar ranked 16<sup>th</sup>; and Saleel Shahanawaz Mujawar, ranked 18<sup>th</sup>, amongst 520 students at the All-Goa GUART examination conducted by Goa University in March 2023, for the admission to M. Sc. Chemistry at the Academic Year 2023-2024.

Mr. M. Ruveen have been elected at the Indian Institute of Science Education and Research (IISER) Thiruvantpuram for an integrated Ph. D. programme in Chemistry. He had qualified at the JAM 2023 Examination.



M. Ruveen  
2<sup>nd</sup> Rank



Alic Carvalho  
13<sup>th</sup> Rank



Gopal Sawant  
16<sup>th</sup> Rank



Saleel Mujawar  
18<sup>th</sup> Rank

Two T. Y. B. Sc. Chemistry students, Miss Samiksha P. Adamane and Ms. Ruchi Gawas along with Dr. Sachin B. Kakodkar, Assistant Professor, Department of Chemistry, attended a Workshop 'Quiz and Quest for Science' organized by the Department of Chemistry, Dhempe College of Arts and Science, Miramar Goa, in association with Royal Society of Chemistry (UK) – Local Section Deccan India, on Saturday, 30<sup>th</sup> September, 2023.

Miss Samiksha P. Adamane and Ms. Ruchi Gawas won the Joint Third Place in the puzzle round.



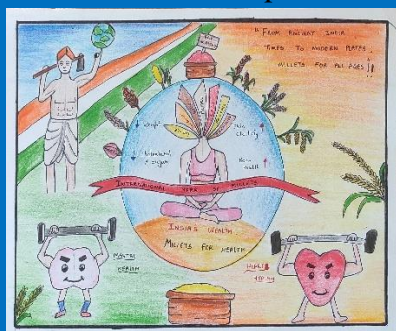
Dr. Sachin B. Kakodkar and students receiving the Certificates

To commemorate the International Year of Millets (IYOM) 2023, Department of Chemistry organized “Drawing Competition” for the undergraduate students through the Department Club “Chem Zone” on the theme “BENEFITS OF MILLETS”.

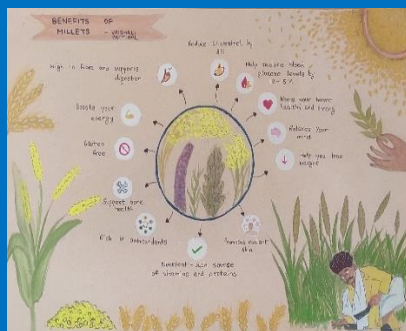
The competition was held during 11<sup>th</sup> September 2023 to 15<sup>th</sup> September 2023. 14 students participated in the competition and top 3 drawings were selected to award the Winner Certificates.

The winners were, First Prize Winner: Ms. Priyanka Bind (F. Y. B. Sc.); Second Prize winner: Ms. Vaishali Pattihal (S. Y. B. Sc.); Third Prize Winner: Ms. Calida De Melo (F. Y. B. Sc.). All the participants were awarded 05 Non-Evaluative Credits hours and the participation certificates.

The activity was conducted by Dr. Mayuri Naik and Ms. Ashvini Pujari, the Assistant Professors of the department.



First Prize Winner:  
Ms. Priyanka Bind (F. Y. B. Sc.)



Second Prize winner:  
Ms. Vaishali Pattihal (S. Y. B. Sc.)



Third Prize Winner:  
Ms. Calida De Melo (F. Y. B. Sc.)

Ms. Samridhhi Naik Borkar and Ms. Tejal Naik of T. Y. B. Sc. Chemistry, attended One-Day Seminar on “Recent Advances in Bio-Inorganic Chemistry”, organized by the Department of Chemistry, BITS Pilani K. K. Birla, Goa Campus, held on 29<sup>th</sup> December, 2023.



## STUDENT PERFORMANCE AT NCC



Mr. Huzaifa Khairati

Our student Mr. Huzaifa Khairati attended the NCC Camps:

- Thal Sainic Camp, TSC-I, held at Belagavi from 16<sup>th</sup> June 2023 to 25<sup>th</sup> June 2023.
- Thal Sainic Camp, TSC-II, held at Belagavi from 08<sup>th</sup> July 2023 to 17<sup>th</sup> July 2023.
- Thal Sainic Camp, TSC-III, held at Belagavi from 22<sup>nd</sup> July 2023 to 17<sup>th</sup> July 2023.
- Thal Sainic Camp, Inter Group Competition TSC-IGC, held at Mysuru from 01<sup>st</sup> August 2023 to 10<sup>th</sup> August 2023.
- Combined Annual Training Camp (PRE-RDC-I), held at Belagavi from 10<sup>th</sup> September 2023 to 19<sup>th</sup> September 2023.
- Combined Annual Training Camp (PRE-RDC-II), held at Belagavi from 20<sup>th</sup> September 2023 to 29<sup>th</sup> September 2023.
- Combined Annual Training Camp (PRE-RDC-III), held at Belagavi from 30<sup>th</sup> September 2023 to 09<sup>th</sup> October 2023.
- Combined Annual Training Camp, held at Don Bosco College of Agriculture, Sulcorna-Quepem-Goa, from 22<sup>nd</sup> December 2023 to 31<sup>st</sup> December 2023.

## ALUMNI ACHIEVEMENTS

Two of our Alumni cleared Maharashtra State Eligibility Test, M-SET examination, the eligibility for Assistant Professor, in the subject of Chemical Sciences, on 27/06/2023.



APEKSHA HIRU NAIK



SHREYA NAGRAJ KALE

The order on the recommendation of the Goa Public Service Commission, the Governor of Goa is pleased to appoint Shree Manthan Naik, as a Junior Scale Officers of Goa Civil Service, group A Gazetted in Level 10 of revised CCS Rules, 2016, letter dated 10<sup>th</sup> August, 2023.



Manthan Naik

## NEW TEMPORARY APPOINTMENTS OF FACULTY



Ashwini Y. Pujari

M. Sc. in Organic Chemistry, with an experience of 08 Years, working at various places:

- Assistant Professor in Chemistry on Contract Basis for the academic Year 2015-2016 at Government College of Arts, Science and Commerce, Quepem-Goa.
- Assistant Professor in Chemistry on Contract Basis from the academic Year 2016-2023 at the P. E. S's Ravi S. Naik College of Arts and Science, Farmagudi, Ponda- Goa.



Kamaksha D. Borkar

M. Sc. in Physical Chemistry, with an experience of one Year.

## FACULTY ACHIEVEMENTS

### **Dr. G. K. Naik, Associate Professor, Head, Department of Chemistry**

- Participated in the the 17<sup>th</sup> Annual Meet of Chemistry Faculty & Alumni Association (CDFAA) organized by the School of Chemical Sciences, Goa University, held through Online Mode, on 17<sup>th</sup> June 2023.
- Attended “Sixteen Day Training Programme for Science and Mathematics Faculty” held at TDC-IISc, Challakere Campus, Khudapura- Chitradurga, Karnataka-577536.
- Participated in the NPTEL, E-Awareness Workshop held on 27<sup>th</sup> November, 2023.

### **Dr. Sachin B. Kakodkar, Assistant Professor, Department of Chemistry**

- Attended the workshop ‘Quiz and Quest for Science’ organized by Department of Chemistry, Dhempe College of Arts and Science, Miramar Goa in association with Royal Society of Chemistry (UK) – Local Section Deccan India, held on Saturday, 30<sup>th</sup> September, 2023.

### **Dr. Lactina R. Gonsalves, Assistant Professor, Department of Chemistry**

- Attended Two-Day Workshop on “Digital Education: Conceptualisation, Design and Development of MOOC’s on 12<sup>th</sup> October, 2023 from 12<sup>th</sup> and 13<sup>th</sup> October 2023 from 9.30 am to 6.00 pm. The workshop was organised by the Directorate of Higher

Education (DHE) and Goa State Higher Education Council in collaboration with Consortium for Educational Communication (CEC), New Delhi.

- Attended “Sixteen Day Training Program for Science and Mathematics Faculty” held at TDC- IISc, Challakere Campus at Khudapura Chitradurga, Karnataka- 577536.

**Dr. Mayuri Naik**, Assistant Professor, Department of Chemistry

- Participated in the the 17<sup>th</sup> Annual Meet of Chemistry Faculty & Alumni Association (CDFAA) organized by the School of Chemical Sciences, Goa University, held through Online Mode, on 17<sup>th</sup> June 2023.
- Was elected as a member of the newly formed “7<sup>th</sup> Executive Committee of CDFAA” for the period 2023-2025.
- Participated in National Intellectual Property Awareness Training Program as part of the National IP Festival organized by O/o CGPDTM and CSIR under Azadi Ka Amrit Mahotsav celebrated from 1<sup>st</sup> to 31<sup>st</sup> July, 2023.
- Attended a Two-Day Workshop on “Digital Education: Conceptualisation, Design and Development of MOOC’s on 12<sup>th</sup> October, 2023 from 12<sup>th</sup> and 13<sup>th</sup> October 2023 from 9.30 am to 6.00 pm. The workshop was organised by the Directorate of Higher Education (DHE) and Goa State Higher Education Council in collaboration with Consortium for Educational Communication (CEC), New Delhi.
- Attended NEP Orientation and Sensitization programme from 16<sup>th</sup> to 26<sup>th</sup> October 2023 through Online Mode, organized by University Grants Commission Malaviya Mission Teacher Training Centre, Goa University from 2:00 pm - 3:30 pm and 3:45 pm - 5:15 pm.
- Attended National webinar on “Awareness on Malaviya Mission Teacher Training Program” held on 22<sup>nd</sup> October 2023 in Online mode from 11:00 am to 01:00 pm organized by Guru Angad Dev Malaviya Mission Teacher Training Centre, SGTB Khalsa college, University of Delhi.
- Participated in a multidisciplinary Online one-day National Workshop on “Skills for Research Paper Writing and Publication” organized by under the LINKAGE of Library and Information Center in Arts, Commerce and Science College, Kille-Dharur, Dist. Beed and Arts, Science and Commerce College, Ambad, Dist. Jalna held on 25<sup>th</sup> October 2023.
- Attended the “Refresher Course in Chemistry” in online mode organized by UGC-Human Resource Development Centre (UGC-HRDC) and Department of Chemistry, Savitribai Phule Pune University, Pune during the period from 21/11/2023 to 04/12/2023.
- Was the Resource person for the workshop on "Chems sketch and Chemdraw: Useful tools in Chemistry" for higher secondary school teachers on 11<sup>th</sup> December 2023 from 04:00 to 05:00 pm through Online Mode.



- Dr. Mayuri Naik and Ms. Kamaksha Borkar Assistant Professors, Department of Chemistry attended One-Day Seminar on “Recent Advances in Bio-Inorganic Chemistry” held on 29<sup>th</sup> December 2023, organized by the Department of Chemistry, BITS Pilani K. K. Birla, Goa Campus.



## DEPARTMENT ACADEMIC ACTIVITY FOR STUDENTS

### TWO ONE-DAY WORKSHOPS FOR STUDENTS

Department of Chemistry organized the Two One Day Workshops for the Undergraduate and Postgraduate Chemistry student of the College.

The Resource Person for these Workshops was R. Girijan, Consultant-Product Support, Toshvin Analytical Pvt. Ltd. with an experience over 45 Years in the field of Sophisticated Instrumentation.

The first, One Day Workshop on the Topic “Chromatographic Instrumental Methods of Analysis: Gas Chromatography and High-Performance Liquid Chromatography” was held on October 9<sup>th</sup>, 2023, from 10:00 AM to 5:00 PM.

The Inaugural session was held in the presence of the Chief Guest, Principal, Prof. (Dr.) Sangeeta Sankhalkar. Dr. G. K. Naik, Head, Department of Chemistry, welcomed the Resource Person, the Principal of the College, the Faculty of the Department, and the Undergraduate and Postgraduate students of the Chemistry Department.

In the Inaugural speech, Principal of the College brought to the attention of the students, the importance of the sophisticated instruments in various analysis in the field of chemical science and life sciences.

The Head, Department of Chemistry introduced the Resource Person to the audience. The Resource Person, spoke on different sophisticated instrumentation available for all types separations and their analysis. He brought to the attention that; the instrumentation is the back bone of pharmaceutical industries.

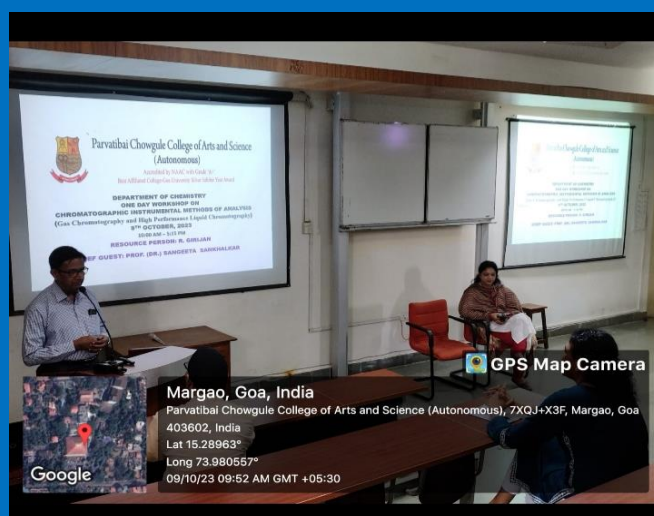
Dr. Lactina R. Gonsalves proposed the vote of thanks.

Sixty-seven students and faculty attended the workshop. The Head, Department of Chemistry proposed the vote of thanks.

In the morning session, the resource person spoke on UV-VIS Spectroscopy and its Applications. The workshop ended with the question and answers by the students.

The Workshops were held in the College Upper Auditorium.

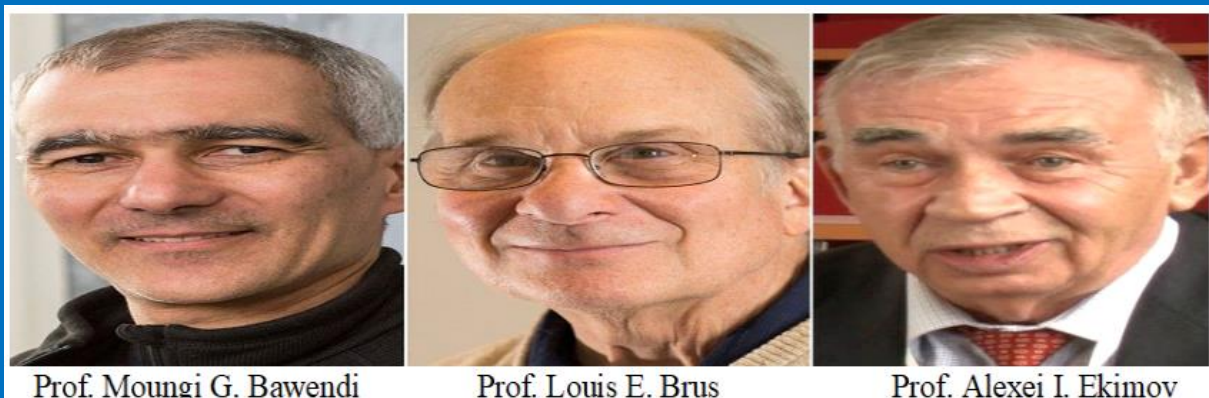
The workshops were open to all the students and faculty of Science Departments.



## NOBEL PRIZE IN CHEMISTRY

Press Release: 4<sup>th</sup> October, 2023; Courtesy: Science reporter, BBC News, By Georgina Rannard.

The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Chemistry 2023 to **Moungi G. Bawendi**, Massachusetts Institute of Technology (MIT), Cambridge, MA, USA; **Louis E. Brus**, Columbia University, New York, NY, USA and **Aleksey Yekimov**, Nanocrystals Technology Inc., New York, NY, USA; for “the discovery and synthesis of quantum dots”



The three scientists are US-based. Russian Physicist Alexei I. Ekimov, 78, is credited with first discovering quantum dots in the 1980s; the US Chemist Louis E. Brus, 80, then realised the crystals could be developed floating in fluid; and Paris-born Moungi G. Bawendi, 62, invented a method for making custom-made quantum dots, opening more commercial and for scientific uses.

“It is quite an honour”, prize-winner Moungi G. Bawendi, told the Academy in a phone call minutes after the names were announced.

Moungi G. Bawendi pioneered the development of quantum dots, that emit very pure light. They are extremely tiny, just a few millionths of a millimetre across and are artificially-created by collection of semiconducting nanoparticles that glow blue, red, or green when exposed to light. Their exact size determines the colour of light they emit when given energy. The smallest quantum dots emit higher energy waves and produces blue light, and the biggest dots release lower energy waves produces the red light, with the middle sizes produces the colours in between.

The Royal Swedish Academy of Sciences said, “Quantum dots are thus bringing the greatest benefit to human kind”.

Researchers believe that, in the future they could contribute to flexible electronics, tiny sensors, thinner solar cells and encrypted quantum communication. They say “we have just started exploring the potential of these tiny particles”.

People have come across these tiny crystals in their QLED TV sets where the nanoparticles create colour. They are also used in medical imaging to guide surgeons, in better targeting of cancer drugs, and in solar panels.

**Editor:** G. K. Naik

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