

## **CHEMISTRY ASSOCIATION REPORT --2018-19**

### **Association Inauguration**

The inauguration of Chemistry Association for the year 2018-19 was formally held on 24<sup>th</sup> August 2018 at the seminar hall of Mannaniya College of Arts & Science, Pangode. Sri A H Badrudeen, Associate Professor and Principal (in charge), presided over the function. The programme was started with a prayer song by the students of the Department of Chemistry. After the welcome speech by Dr. Mercy Raj C, HOD and coordinator of the programme, Sri A.H Badrudeen, Principal in charge delivered the presidential address and inaugurated the session. Sri S Abdul Hashim; Head of the Dept of Islamic History, Dr. Parameswaran Ashok Nair; HOD of Mathematics, Dr. M.S Noufal; HOD of Malayalam and Sri Junaid A, Superintendent, Mannaniya College felicitated the gathering.

Dr. Syamchand S S, Assistant Professor, Research and P G Department of Chemistry, University College, Trivandrum was the resource person. After the technical session, our principal in charge handed over a memento and a certificate of citation to the resource person. Dr. Shiji Fazil, Assistant Professor of chemistry thanked the resource person for his valuable lecture and the students for their full cooperation for making the programme a grant success. The inaugural Session came to an end by 1.30 PM.



Inauguration of Chemistry Association 2018-19 by our Principal Sri A H Badrudeen.

## **STUDENT ENRICHMENT PROGRAMME**

### **1. ACADEMIC SEMINARS**

#### **1.1 SEMINAR ON FASCINATING WORLD OF NANO**

To review the current state of knowledge in the field of nano science and technology along with their novel applications and challenges, Department of Chemistry, Mannaniya College of Arts & Science, Pangode organised a State level seminar on “**Fascinating world of Nano**” on 24 th September 2018. The seminar was inaugurated by the Chief Guest Dr. Syam Chand S S, Assistant professor, Research and PG Department of Chemistry, University College, Trivandrum and he emphasized the need for such educational programmes and suggested that such events should be held every year and efforts should be made to focus on the seminar providing advanced training on specific topics. He delivered an invited lecture on the topic “Fascinating World of Nano”, by demonstrating the experiment for the preparation of Gold nanoparticles, which was very interesting and highly useful to the students of the department. He stressed on the basic concepts of Nanochemistry, Historical aspects and the importance of nanosystems in nature. He also gave an account of carbon nanotubes and properties of nanoparticles. He also highlighted the various applications of nanomaterials in electronics, robotics, computer science and medicine.



Preparation of Gold Nanoparticles during the seminar



In the afternoon session, an oral presentation for the students of the Department of Chemistry was arranged. This session was chaired by Dr. Dilshad Bin Ashraf, WWS Coordinator and 16 students participated in the oral presentation. The best oral presentation award was given to Nauja Jaleel Shamnar of I B.Sc by the Principal. Suhiya N , III B.Sc and Asif Muhammed , II B.Sc shared the second prize . Ameersha S M , III B.Sc and Aswathy Ghosh II B.Sc were jointly awarded the third prize of oral presentation. Certificate of appreciation was given to all the participants who presented a paper in the seminar.



Paper presentation by Noufal II B.Sc

## **1.2 INTERNATIONAL SEMINAR ON SCIENCE FOR SUSTAINABLE DEVELOPMENT, MCASIS 2019**

Department of Chemistry in association with IQAC, Mannaniya College of Arts & Science, Pangode organised an international seminar-MCASIS 2019 on 14/01/2019 and 15/01/2019 which focuses on the focal theme of “**Sustainable Development Vision 2030**” introduced by UNESCO. Dr. Mercy Raj. C, Head, Department of chemistry gave welcome address and Presidential address was given by Dr. M.S Noufal, Associate professor in charge of the Principal. The Inauguration of the international seminar and keynote address were given by Mr. Sajeer Fazil, Alumni of Southern University of California, Research and Programme Engineer, Qualcomm Ltd. California, USA. Felicitations were given by Dr. P. Ashok Nair, IQAC Coordinator, and Dr. Dilshad Bin Ashraf, Joint Coordinator. The inaugural ceremony came to an end by the vote of thanks furnished by Dr. Shiji Fazil, The Programme coordinator, MCASIS 2019. In the technical session started at 11.15 am, Smt. Ameena Badrudeen from San Diego University had delivered a lecture on the topic “**Science for Sustainable Development**”. After the lunch break, an oral paper presentations on the seminar topic were presented by the students. The chief guest, Mr. Sajeer Fazil, chaired the session.



Resource person Ms. Ameena Badrudeen, San Diego university handling the session





Honouring Mr. Sajeer Fazil, Qualcomm, California

On the second day of the seminar, 15/01/2019, Mr. Sajeer Fazil, Alumni of Southern University of California, Research and Programme Engineer, Qualcomm Ltd. California, USA handled the session on the topic ***“Sustainable Development- Vision 2030”***. Students and a few faculty members from English, Commerce and Arabic departments presented papers based on the seminar theme. Smt. Ameena Badrudeen from San Diego University had chaired the session. Miss Nouja Jaleel Shamnar from I B.Sc Chemistry secured the first position for oral presentations.



Mr. Akshay Nath Presenting a paper

### **1.3 ONE DAY SEMINAR ON *ROLE OF WETLANDS IN WATER CONSERVATION AND WATER SUSTAINABILITY OF KERALA*".**

To understand the role and significance of the unique wetland ecosystem, Department of Chemistry in association with the Science club organised a one day seminar sponsored by Kerala State Council for Science, Technology and Environment (KSCSE) on the topic “*Role of Wetlands in water conservation and water sustainability of Kerala*” on 5<sup>th</sup> February 2019, Tuesday. Dr. Mercy Raj. C, Head of the department of Chemistry delivered the welcome speech. The Presidential address was furnished by our respected Principal in charge Prof. A.H. Badrudeen and the Chief Guest, Dr. Shaji. E, Assistant Professor, Department of Geology, University of Kerala, formally inaugurated the programme. Felicitations were given by IQAC Coordinator, Dr. Parameswaran Ashok Nair, and Vice Principal, Dr. M.S. Noufal. Dr. Shiji Fazil, the Programme Coordinator, casted the vote of thanks.



Dr. Shaji. E, Our Chief Guest Inaugurating the programme

In the technical session, Dr. Shaji. E has given an invited lecture on the seminar topic. 165 delegates, including the Faculty and Students of various departments of our institution were participated in the seminar. The main aim of the seminar was to focus on various strategies for the conservation of wetlands and the water resources in the context of the deluge that undulated Kerala recently.



### **Invited lecture by Dr. Shaji E**

In the afternoon session, Students from various departments and a few faculty members of our institution were presented papers based on the topics related to Wetlands. Dr. L. Abdul Kalam, Head (Retd), Department of Physics, Iqbal College, Peringamala Chaired the session. Shabana. S and Nouja Jaleel from B.Sc Chemistry got first and second positions. Akshara. G from B.Com Cooperation Department won the third prize. The winners were awarded with cash prizes



Akshara.G, from B.Com Cooperation presenting a paper based on wetlands

## **2. Dr. M O ANIL KUMAR MEMORIAL INTER SCHOOL QUIZ COMPETITION**

To test the knowledge of the participants beyond academics and also to attract the students to the field of Chemistry and science and to equip them for competitive examinations, an Inter School Chemistry Quiz competition was organized by the Department of Chemistry, in association with IQAC in fond remembrance of our first HOD, Dr. M.O Anil Kumar in the College Seminar Hall on Wednesday, 13<sup>th</sup> February 2019. The Quiz master was Dr. M R Sudarsanakumar, Associate Professor in Chemistry and former Principal, M.G College, Trivandrum. Students of classes XI, and XII from Science stream of 11 Schools namely GHSS, Bharathannoor; GHSS, Chithara; Govt HSS, Kilimanoor; RRV Girls, Kilimanoor; Govt HSS, Kadakkal, Mother India Public School, Kallara; GBHSS, Mithirmala; MMHSS, Nilamel; MTM Senior Secondary School, Pangode; IQBAL HSS, Peringamala and GKSGMV HSS, Vellanad participated in the quiz competition. Each team consisted of two students and 20 teams in total participated in the quiz contest. In the presidential address, our Principal in charge Dr. M .S Noufal gave an introduction to the College Management and remarked that such type of informative Quiz satisfies the inquisitive mindset of the students and help them to face the Competitive World more efficiently. The quiz competition was formally inaugurated by the Chief Guest, Dr. M R Sudarsanakumar. He recollected and shared his fond memories of his colleague and our former HOD of Chemistry Dr. Anil Kumar M.O., and also emphasised the importance of quiz competitions in the present competitive world. Dr. Parameswaran Ashok Nair, IQAC coordinator delivered a felicitation address in the programme and our faculty member Dr. Shiji Fazil toasted the vote of thanks to the chief guest and to all the participants for participating and making the event a grand success.

After the inaugural session, a screening test was conducted and the six top scoring teams from six schools were selected to participate in the final Round. All the six teams participated enthusiastically and the final Quiz rounds came to a successful closure with the CURIE team (Lekshmi S Sathees & Gopika Gopal, Govt HSS, Kadakkal) emerging as the winner. They won the final round with 60 points. The first runner up was KALAM team (Fida Fathima S Z and Adithya Chandran, Iqbal HSS, Peringamala) with 50 points and the second runner up was team C V RAMAN (Abhiram Asok & Ashiq A R, MTM Senior Secondary School, Pangode) with 44 points.





Screening Test



Final Round

Winners were given mementos, certificates and cash prize (I prize Rs. 3000, II Prize, Rs. 2000 and III prize, Rs. 1000). All the other participants were given certificates of Participation. In the valedictory session, the programme -coordinator delivered a small speech and thanked all the

participants, teachers and guardians for joining in this quiz contest and making it a grand success. It was a highly knowledge enriching experience for the participants as well as the audience.



### **3.WORLD OZONE DAY CELEBRATION-2018**

As part of the World Ozone Day celebration, Chemistry Association organised a quiz competition on the topic “Environmental Chemistry” on 17<sup>th</sup> September 2018, for the degree students of Mannaniya College. The competition started with a prayer song followed by the welcome speech and the presidential address by Dr. Mercy Raj C, HOD and convenor of the programme. The programme was formally inaugurated by Dr. M.S. Noufal, Associate Professor in charge of Principal and HOD of Malayalam. 18 students from the departments of Chemistry and Commerce participated in the competition. After the preliminary round, seven students were selected for the final round. The exhilarating final round was anchored by Mr. Ameersha S M of III B.Sc. In the thrilling finish, Jinsi S, of final year B.Sc secured first prize. The second and third places went to Aswathi Ghosh A R , II B.Sc and Najiha , I B.Sc respectively.



### QUIZ COMPETITION

Three teams from our department comprising of 1) Ameersha S M & Najiha R, 2) Jinsi S & Aswathi Ghosh A R and 3) Nowfal S & Anand R B got the opportunity to participate in the Intercollegiate Quiz Competition (“Keep cool and carry on! The Montreal Protocol”) organised by the P.G Department of Chemistry & Research centre, Mahatma Gandhi College, Trivandrum in connection with the World Ozone Day celebration, funded by KSCSTE, Pattom on 19<sup>th</sup> September 2018 at the college auditorium.

### **4. WORLD WETLAND DAY CELEBRATION 2019**

The Department of Chemistry in association with the Science Club of Mannaniya College of Arts and Science has celebrated World Wetland Day 2019, supported by Kerala State Council for Science, Technology and Environment (KSCSTE) during 5<sup>th</sup> and 6<sup>th</sup> February 2019. A documentary show was exhibited with the title “Inevitability of wetlands to a healthy environment”, which revealed the importance of wetlands for our existence. After the documentary show, a Poster Exhibition related to wet lands was arranged by incorporating students from all departments of the institution. The poster exhibition was inaugurated by our Principal (I/C) Prof. A.H. Badrudeen. Shahana .A. Khader from final year B.Sc Chemistry secured the first prize for the best poster. After lunch, by 1.30 pm an Essay Writing Competition for 1 hour was arranged for all the interested students from the various departments of the college



based on the focal theme . Najiha. R, a student I B.Sc Chemistry got the first position in the Essay writing competition.



Ms. Shabana .S from BSc Chemistry presenting the slides

## 5. INDUSTRIAL VISIT

As a part of the BSc Chemistry curriculum, the Dept. organized a study tour to Ernakulam and Munnar on 16<sup>th</sup> and 17<sup>th</sup> March 2019 for 24 students of 6<sup>th</sup> Semester B.Sc Chemistry. They were accompanied by the faculty member Dr. Mercy Raj C, HOD and Sri. Asharafudeen, lab Assistant . They visited Anna Aluminium Company, Cochin and Madupetty Tea Factory, at Kannan Devan Hills Plantations Ltd, Munnar . The students gained invaluable practical insights regarding their subject from these industrial visits. The itinerary of the trip also included a Visit to the Tata tea gardens, the Mattupetty dam, Kundala dam and Eco point spot which are acclaimed tourism destinations in Munnar. Various enriching leisure activities such as boat riding, shooting etc were also carried out to make the trip memorable.





## 6. CONSULTANCY SERVICE

Considering the meager agrarian earning and livelihood based on Rubber cultivation at homesteads of the rural population of the locality, the institution strives to reach out to them in many ways. One of the ways of facilitating is by ensuring them a fair income out of their rubber small holdings especially to the local farming community of Pangode, Kerala. A free of cost Consultancy Service is provided by the Department of Chemistry for testing the DRC of rubber latex collected from rubber farmers in and around Pangode. Our students collect samples from their plantations, tests them in our Chemistry labs to measure the Dry Rubber Content and the ensuing reports of each are collected meticulously, and send home to the respective farmer.



Estimation of DRC

## **7 STUDENT ENTERTAINMENTS AND MOTIVATIONS**

Active participation of all the students of the Department of Chemistry was ensured in all the cultural programmes including the Arts fest and Food fest organised by our College despite time constraints particularly faced by science students, and they made the department proud by securing the Overall Trophies in both in consecutive years. At the end of the academic year a farewell ceremony to the outgoing students was organised by the junior students on 28<sup>th</sup> march 2018.

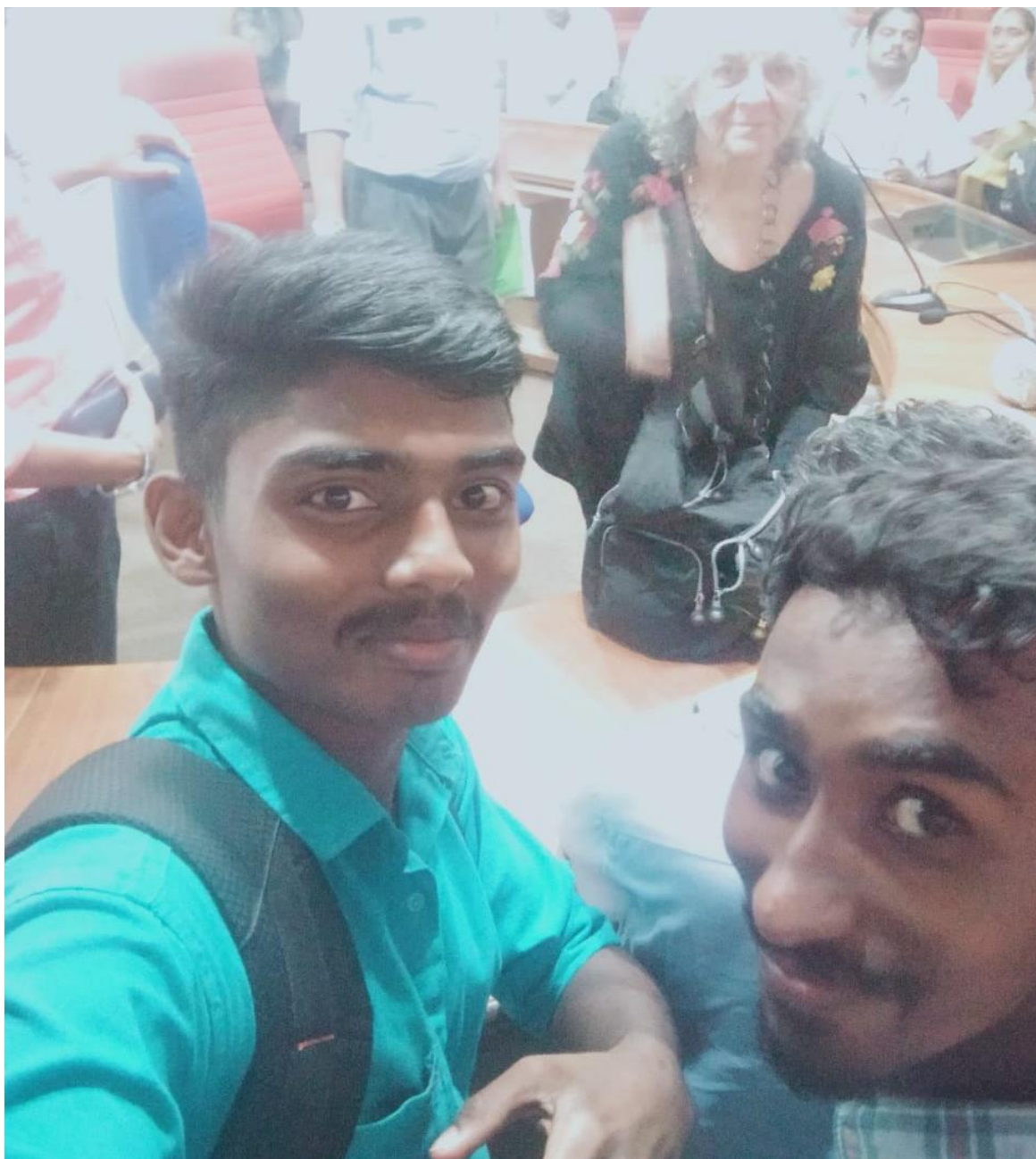
## 8. Interaction with Nobel Laureate, Ada E Yonath

Most teachers and students worldwide often have little chance to meet and interact with Nobel Laureates. In such a situation, a Programme for inviting Nobel Laureates for the benefit of teachers and students to share knowledge in the concerned field is exceptionally significant. Five students of the Department of Chemistry attended the programme, ERUDITE – SCHOLAR IN RESIDENCE PROGRAMME organized by the Kerala State Higher education Council at Senate Chamber, University of Kerala, Palayam on 04 / 02 / 2019 . In this Programme, Eminent Nobel laureate in Chemistry Dr. Ada E Yonath, an Israeli Protein Crystallographer delivered lectures on X ray crystallographic Technique and atomic structure of the small ribosomal subunit and shared scientific advancements in her areas of research, provided academic career guidance to young researchers and suggested new research questions to them . Exposure to the knowledge and experience of the Nobel Laureate tremendously influences our students, not only intellectually but also psycho-socially by enhancing self-esteem and self confidence.



Ada Yonath sharing her research experience with students and faculty members





Selfie of Aswin III B.Sc with AdaYonath

## **9 Cash awards and Memento**

Shahana Khadar of final year B. Sc (2018-19) was honoured with Joykuttan Memorial Cash award for securing the highest mark in the second year B.Sc Chemistry examination conducted by the University of Kerala. Sumayya S of III B.Sc (2017-18) became eligible for the PTA cash award of the year 2018-19 and she had the honour of receiving the memento and the award from the Head of the institution .