

## **Report –INSPIRE Internship Program-2018**

INSPIRE Internship Program-2018 was organized by Uka Tarsadia University, Bardoli, Gujarat during 5<sup>th</sup> to 9<sup>th</sup> September 2018. The program was sponsored by the Department of Science and Technology (DST), Govt. of India, New Delhi. The aim of the program was to inspire and encourage the brilliant young minds to take up basic sciences related technology, and R&D as a career. In this forum, 124 students of Class XI from Royal group of Schools, Dhoraji, Rajkot, Aswamegh Vidhyalaya, Pardi, Sarwajanik School of Science, Surat, BRJP High School, Pardi and L.P. Sawani School, Surat participated. Students who had secured 86.4% and above in Gujarat Board in Class X were selected to participate in the Science Camp. The science teachers from above schools have also participated in this INSPIRE Science Camp along with their students. During the course, ten mentoring sessions were conducted. Among the mentors, 4 were Fellows of all three Indian academies along with Shanti Swarup Bhatnagar awardee, Sir. J.C. Bose National Fellow and DST-Ramanujam Fellow. The topics included Botany, Biotechnology, Microbiology, Biochemistry, Neutrino Physics, Planetary Science, Biomolecules, Mathematics, Chemistry and Physics.

The Science Camp was inaugurated with lighting of lamp in the morning of 5<sup>th</sup> September 2018. Dr. D.R. Shah, Provost, Uka Tarsadia University; Prof. Arun Arya, M.S. University, and Dr. N.C. Shah, Advisor, UTU graced the occasion with their august presence. School children, University officials and faculty members were present during the inaugural session. An introduction about the science camp was given and the audience was welcomed by Dr. N. Amaresan, Coordinator of DST inspire program. This was followed by the addresses of Provost, UTU addressed the gathering and the motivational and inspirational speech by Prof. Arun Arya, Chief Guest and Dr. N. C. Shah, Advisor, UTU which were motivational and

inspiring to the young minds. Prof. Arun Arya, Head, Department of Environmental studies, Faculty of Science, The Maharaja Sayajirao University of Baroda, delivered the first talk on “Understanding Botany and unique potential of Plants”. The next mentor of the day was Dr. Pratap Bahadur, UGC-Emeritus Professor, from VNSGU, who motivated the student participants by his talk on “The fascinating world of polymer chemistry”. The afternoon session was dedicated for hands on practical experience in the field of Botany, Biotechnology, Microbiology, Physics, and Chemistry for all the five days. The practical sessions on the above subjects were conducted by Dr. Meonis Pithawala (Biotechnology), Prof. I. Rajashekar (Botany), Dr. Pritesh Patel (Microbiology), Dr. Urjita Sheth (Chemistry) and Dr. Ray Jaymin (Physics). In the first day of evening time, the students were engaged in showing Science movie (Mutant Ninja).



**Dignitaries on the Dias**



**Lamp Lighting during inauguration**



**1<sup>st</sup> mentoring session by Prof. Arun Arya**



**2<sup>nd</sup> mentoring session by Prof. P. Bahadur**

The second day started with the felicitation of Prof. Gayathri Archana, Head, Dept. of Microbiology, M.S. University, Baroda who delivered a talk on “Planet of the bacteria”. She

motivated the students by presenting the success stories and role of bacteria in different fields. The second session was mentored by Prof. Naresh Kumar, Dept. of Biochemistry, M.S. University, Baroda who mesmerized the students by his talk on “Exciting insights into the Mysteries of Life”. He advised the students of Biology to take up career in Life Science programmes. After the mentoring session the students celebrated the teachers’ day. In the afternoon session the students participated enthusiastically in performing the experiments. In the evening session, the students exhibited their talents in activities such as reciting poem, singing and dancing.



**3<sup>rd</sup> mentoring session by Prof. G. Archana**



**4<sup>th</sup> mentoring session by Prof. G. Nareshkumar**



**Teachers' Day Celebration**



**Botany Practical session**

The third day of the INSPIRE Internship Program began with the yoga session for the female participants conducted by the Yoga Centre of UTU. This was followed by welcome and felicitation of Mentor, Prof. S.G. Dani, FNA, FNASc, FASc (Shanti Swarup Bhatnagar

Awardee), Distinguished Professor, DAE-Centre for Excellence in Basic Sciences, Mumbai University. He delivered a talk on “Numbers, shapes and civilization” while motivating the participants to take up careers in Mathematics. The second session was mentored by Prof. Sarita Gupta, Head, Dept. of Biochemistry, The M. S. University of Baroda. She delivered her talk on “Biological sciences and its future scope” and emphasized the art of living cells and research on them. She also showed a movie on cell structure and also shared the list of Life science courses supported by Govt. of India to take up in future. The post lunch session was devoted for the hands on practical and respective batch students performed the experiments with much enthusiasm. The evening session was devoted for write-up competition on various topics mentioned by DST along with quiz competition.



**5<sup>th</sup> mentoring session by Prof. S.G. Dani**



**6<sup>th</sup> mentoring session by Prof. Sarita Gupta**



**Write-up competition**



**Yoga session**

The Fourth day of INSPIRE Internship Program started with the yoga session for male participants conducted by the yoga centre of UTU. The session was followed by welcome and felicitation of Mentor Prof. Srubabati Goswami, FNA, FNASc, FASc (DST-Ramanujam Fellow), Physical Research Laboratory, Ahmedabad. She delivered a talk on “The Mystery of the Missing solar neutrinos”. The students were very curious about the talk and asked several questions in one to one interaction. The second mentoring session was conducted by Prof. Shyam Lal, FNA, FNASc, FASc (DST-JC Bose Fellow) from Physical Research Laboratory, Ahmedabad, who delivered his address on “Understanding the fundamentals”. He motivated the students in various aspects. The post-lunch session was on hands on practical session. The students were overwhelmed with the practical exposure and were bubbling with energy while interacting with Professors of Uka Tarsadia University throughout the program.



**7<sup>th</sup> mentoring session by Prof. S. Goswami**



**8<sup>th</sup> mentoring session by Prof. Shyam Lal**



**Physics practical session**



**Drawing competition**

The last day of INSPIRE Internship Program started with the interactive session of Prof. Dipak K. Palit, FNA, FNASc, FASc (DST-JC Bose Fellow) of UM-DAE Centre for Excellence in Basic Sciences, University of Mumbai, who addressed the participants on “Dynamics of Reactions with Atomic Scale Resolution: A Marriage Between Laser and Molecule”. He enlightened the students on different aspects of chemical reactions and motivated the students to pursue in Science. This was followed by the last mentoring session by Prof. P.K. Jha, Professor, Department of Physics, The M.S. University of Baroda. He delivered his talk on “Why properties of Nanomaterials are different?” The session was followed by Student Feedback Session and Group Photography. The program was well appreciated by the faculty members of the participating schools. The feedback of students regarding the sessions was really positive and all of them felt that they have learnt something new from these talks. During the second half of the day throughout the week, students got an exposure to various interesting experiments and applications related to Physics, Chemistry, and Life Sciences. An essay writing competition, quiz, scientific movies and cultural activities were organized for the students. The best performers were awarded. Accommodation for the students was provided in the campus hostels. Students expressed their wonderful experience during the Science Camp in the UTU campus.



**9<sup>th</sup> mentoring session by Prof. D.K. Palit**



**10<sup>th</sup> mentoring session by Prof. P.K. Jha**

The last session was valedictory ceremony. The Director, C.G. Bhakta Institute Biotechnology, UTU, Dr. R. Krishnamurthy presided over the function. Dr. Dipak K. Palit, FNA, FNASc, FASc (DST-JC Bose Fellow) of UM-DAE Centre for Excellence in Basic Sciences, University of Mumbai was the Chief Guest and Prof. P.K. Jha, Department of Physics, The M.S. University of Baroda was the Guest of Honour. In the valedictory address, Chief Guest and Guest of Honour motivated young brilliant minds to study science and follow it by research and highlighted the perspectives of science education and research and other issues that we need to deliberate during academic interaction with the students. In the felicitation remarks, the Provost, UTU, Dr. D.R. Shah strongly advised the students to work hard and to do research for improving the quality of life of the fellow countrymen. The winners of the write-up, quiz and drawing competitions were honoured and participation certificate to all the student participants were presented by the dignitaries on the Dias. The concluding remarks were given by the program coordinator Dr. N. Amaresan, UTU and vote of thanks was proposed by Prof. I. Rajashekhar, UTU. The program was highlighted by the participation of all the school teachers, student participants, along with the faculty members of UTU, Gujarat. The program ended with the recitation of National Anthem before the final dispersal of the entire gathering.



**Group Photograph with INSPIRE Science Camp students**