S.M.PATEL COLLEGE OF HOME SCIENCE

ANNUAL REPORT OF INNOVATION CLUB ACTIVITIES

Innovation Club Coordinator: Dr. Minal Chauhan

Basics of Vernacular Innovation Training Programme

A 15-day training programme on the "Basics of Vernacular Innovation" was organized by the Commissionerate of Higher Education, Government of Gujarat. The programme aimed to instill an innovative mindset in non-technical students enrolled in commerce and arts streams. The training took place from 17th January 2023 to 7th February 2023, with 22 students participating. The students were introduced to the concepts of innovation and problem-solving through engaging games, chatbots, and other applications on the 'Amrut Navsarjan' platform.

Trainer **Mr**. **Nikunj Panchal** shared the information of how "**AMRUT NAVSARJAN**" Software works, Virtual tour of Amrut Navsarjan Software and introduction of sprite element in software. Also, a series of training were provided to the students by him under the program named- Basics of Vernacular Innovation.

DIT KIY Training Programme" (Prabodh Level -6/2/2023 to 9/2/2023)

The Commissionerate of Higher Education launched a 4-day DIY kit training program entitled "STEM robotics Prabodh level Training" as part of the Innovation Club.

The Innovation Prabodh Training programme was held for 50 students of our institute. The Training was planned by Innovation Club, Gandhinagar. At the institute level, all arrangements were made by the Innovation Coordinator, Dr. Minal Chauhan, under the guidance of the Principal, Dr.Bhavana Chauhan. Mr. Het Patel was invited as the trainer. The training was very informative and skill-based. Students were made to do practical work. All guidelines regarding DIY kits were given to students. Also, they were given hands-on experience.

Day- 1 Prabodh Training

There were two sessions where girls learned about the Basic Electrical Kit and Mechanical Kit. They learned about the Voltage, Battery, Current, Type of Current, Circuit Connection, Electric Components, Breadboard, Jumper wires, Resistor, Series and parallel connection of Resistor, Ohm's law, Capacitor, Series and parallel connection of Capacitor, Diode, LED, Switches, Types of Switches, Buzzer, Variable Resistor, Potentiometer Interface, Transistor, Type of Transistor, Multimeter, Glue gun, and a glue stick. Girls learned by doing practicals like LED Blink, Push Button Interface, Buzzer, Using Glue gun and glue stick, Use of Multimeter. Girls also assembled glider plane and flew it.

Day- 2 Prabodh Training

On the second day of their prabodh training, the students engaged in various fascinating workshops while learning to use an advanced electronics kit. First, the students learned about the functions of multiple parts such as the Arduino Uno Board, LED, Resistor, Jumper wires, and Bread Board. The students were then shown how to push buttons, object detection alarms, social distancing, different sensors like Humidity sensors, Motion sensors, and Temperature sensors, as well as segment LEDs operate. Students enthusiastically participated in the group project and independently connected every component.

Day- 3 Prabodh Training

On the third day of the Innovation Club's Prabodh training, the students learned many new facts and knowledge. They first became familiar with the Orboot Earth AR/VR globe. Students learned about augmented reality (AR). This technology blends virtual information with the actual world, its usage in multimedia, 3D modelling, tracking, etc., after downloading the Orboot Earth app on their smartphones. After that, they worked with the 3D pen, which was enjoyable to use as they created several 3D constructions.

The students were knowledgeable about the Digital Microscope, its components, including the memory card, mount adjustment knob, and angle adjustment knob, and how to set the slide using it. TDS (Total Dissolved Solids) meter demonstration was held, during which students tested several types of water—including tap water, drinking water, RO water, etc.—for the presence of total dissolved solids.

The trainer demonstrated the use of the PH meter and described how to determine the PH of acidic and alkaline water using readings for different PH solutions.

Day- 4 Prabodh Training

On the 4^{th} Day, the participants of Prabodh training were taught about Agri-Tech kit Components. The students were also given guidance on conserving energy and how the future generations will need solar energy. The resources are getting finished and we must preserve them. The students were also taught about the dynamo motor. All the participants completed activity 6 -dynamo practical. Participants were taught how the motor helps convert mechanical energy to electricity. The students tried to operate starting a fan using a dynamo motor. The students also learnt how to measure the moisture of the soil, and how to solder. The students were able to light LED from solar power by themselves. The trainee also explained - LED control from web page, raindrops sensor, and LDR interface.

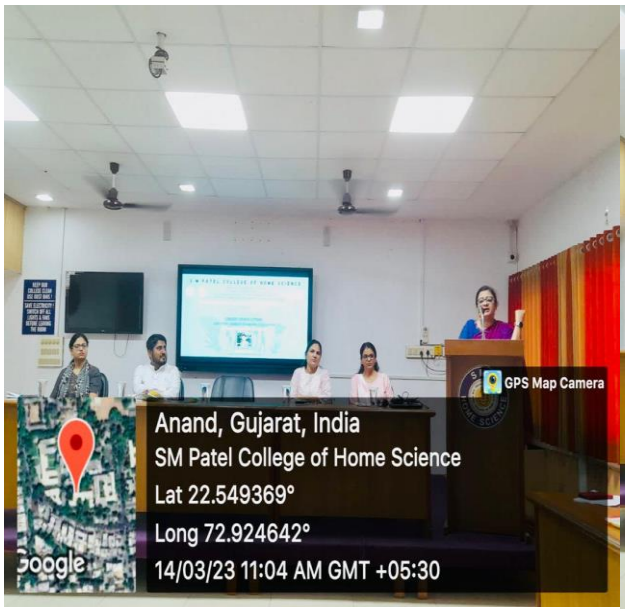
The training was very successful and a positive feedback was received from the students. It motivated students to learn the technical aspects of everyday devices. With the support of all the student participants,the training was successful and enlightening.

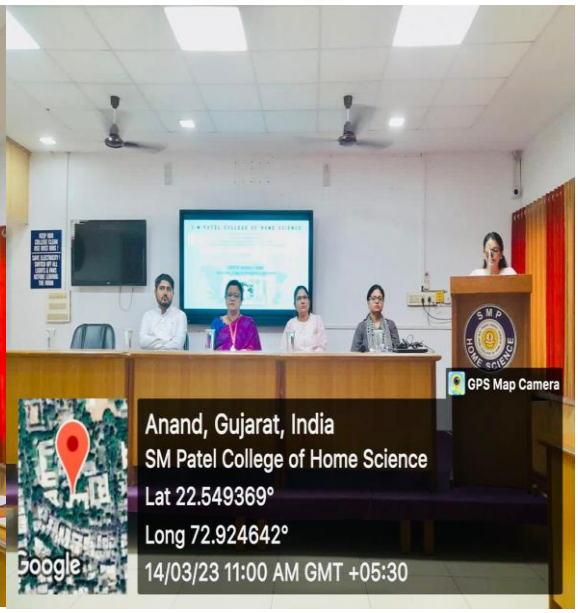
Co-coordinator Dr Vandana Modi remained present and the event was successful with the enthusiastic participation of the students.

A TALK ON

“ GREEN INNOVATION: IDEATION, DESIGN THINKING AND STARTUP.”

The carrier-oriented talk on “ Green Innovation: Ideation, Design Thinking and Startup” was organized on 14th March 2023. Under the guidance of Principal Dr. Bhavana Chauhan, the coordinator of Innovation Club Dr. Minal Chauhan, organised this career-oriented talk in support of SSIP coordinator and NSS Program Officer Dr. Vandana Modi and NSS program officer Ms. Trusha Lad. The guest speaker of the talk was Mr. Chetan Patel (National Coordinator SRISHTI SHODHYATRA. Principal Dr. Bhavana Chauhan motivated students with encouraging words. During the session, all the students were informed about how innovative minds reach the top. The students were motivated to be more creative by showing them fundamental life ideas and successful stories. Information related to patent, market research, marketing channel and marketing policy was provided. At last, the students were taught to use their imagination and find out daily routine problems and how we can solve them.





Projects from Mechanical kit

Under the leadership of Principal Dr. Bhavana Chauhan and the guidance of coordinator Dr. Minal Chauhan, students from the Innovation Club worked on projects using the Mechanical Kit. The projects aimed to apply the knowledge gained from the training and showcase practical applications of the kit.

Application of Amrut Navsarjan software for making Games and Animation

To substantiate the efforts of the Government, students of S.Y. B.Sc, S.M.Patel College of Home Science, Vallabh Vidyanagar, Ms. Rutu Desai, Ms. Heer Arora, and Ms. Nidhi Konkani did animated projects under the leadership of Dr.Minal Chauhan, the Coordinator of Innovation Club, and motivation by the Principal, Dr.Bhavana Chauhan.

Overall, the Innovation Club activities, including the training programmes, career-oriented talk, and project work, have successfully motivated students and instilled an innovative mindset. The students actively participated in the sessions, enhancing their technical skills and problem-solving abilities. The support and guidance of the Principal and faculty members were instrumental in the success of these activities.