ASSOCIATION REPORT (2021-2022)

The Department of Biochemistry, Holy Cross College, organized a Faculty Development Programme on "Digital transformation and Innovation in Biological Sciences- Redefining the role of 2k teachers" from 26th to 30th July 2021. This 5 day knowledge sharing conclave gave a deep insight to reveal better perception of research in biological sciences and also gain insight in entrepreneurship and positive mental wellbeing for the betterment of our life.

On 26th July 2021 the inaugural session was chaired by Prof. Dr. Sakthivel Vaiyapuri, Professor from University of readings, UK who addressed on the topic "Current technologies in biomedical sciences". His deliberations focused on the toxicity of venom of various snakes like viper, cobra etc.,. He elaborated in detail the mode of action of the venom in muscles and formation of gangrene in muscles. He also discussed the prevalence of mortality rate due to snake bites especially in developing countries like India. Current technologies such as high throughput screening, quantification of molecules and advantages of the 3D microtome were presented. The session was very interesting and interactive. The speaker for the second day 27th July was Dr. S. Girija, Associate Professor, Department of Biotechnology, Bharathiar University. Coimbatore. The guest speaker spoke on Virtual lab on HPLC and Mass Spectrophotometer workflow for drug analysis. She clearly demonstrated the working principle and protocol of HPLC and Mass spectrophotometer by presenting a video of the instruments present in her lab. She has also focused on the antiviral compounds used for Coronavirus. Finally, she also emphasized how HPLC and Mass Spectrophotometer are successfully used to screen and identify a new drug for various diseases. The session was very interesting. The speaker for the third day 28th July 2021 was Dr.P. Chellapandi, Professor and Head Department of Bioinformatics, Bharathidasan University, Tiruchirappalli. He delivered a lecture on System and Synthetic Biology in Biomedical sciences. He mainly focused on the applications of system and synthetic biology in various fields of Biomedical Sciences. The session was very informative. The resource person for the fourth day 29th July 2021 was Dr. L. Stanley Abraham, Scientist E, Centre for Ocean Research MoES-ESTC Nodal Cell Marine, Sathyabama Institute of Science & Technology, Chennai who addressed on the topic "Sustainable Bio entrepreneurship- A skill development Program. His deliberations focused on the idea of innovation and the production of sustainable products, importance of patenting, licensing and collaboration. He emphasized on the importance of funding and different funding

agencies, trademark, importance of trade secrets and copyright. He highlighted the need for protecting our idea, forms of IPR, bioentrepreneurship, startup policy and cultivation of seaweed. The session was resource full and informative. The last day of the FDP 30th July 2021 was chaired by Dr. S. RAJAKUMARI Associate Professor, Psychologist, Government Arts College, Coimbatore who addressed on the topic "Enhancement of Positive Mental Health for the Faculties in the Neo Normal Era". Her deliberations focused on the mental stress of teachers during their lifetime. She has explained about what the causes to induce stress are and how to overcome these. She also gave tips to stop stress from becoming overwhelming by practicing some daily strategies.

At the end of each session, there was an interactive session where the queries posted by the participants in the chat box were clarified by the resource persons. The feedback link was given in the chat box at the end of each session and E- certificates were given to all the participants.

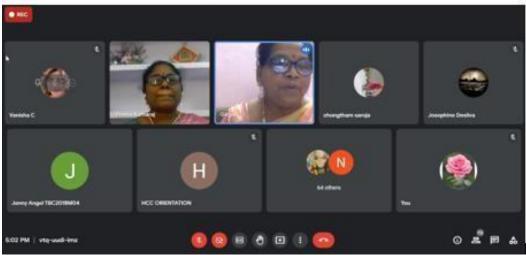
DAY 1-26.07.2021





DAY 2- 27.07.2021



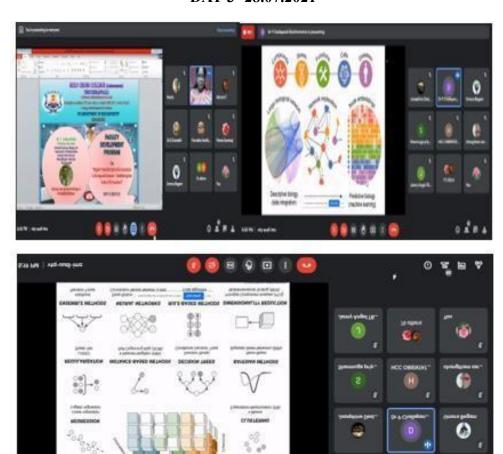


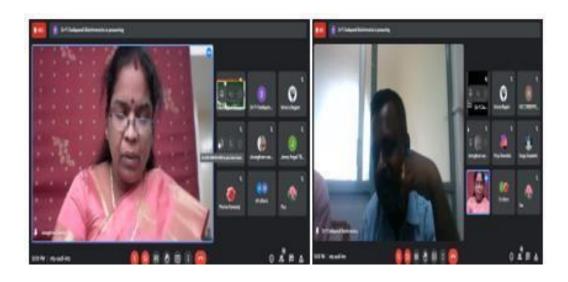






DAY 3-28.07.2021

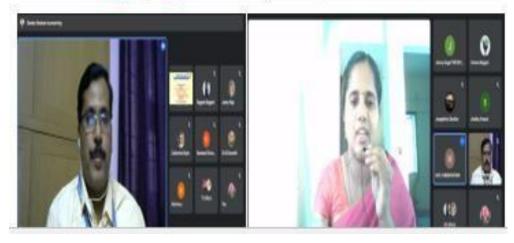




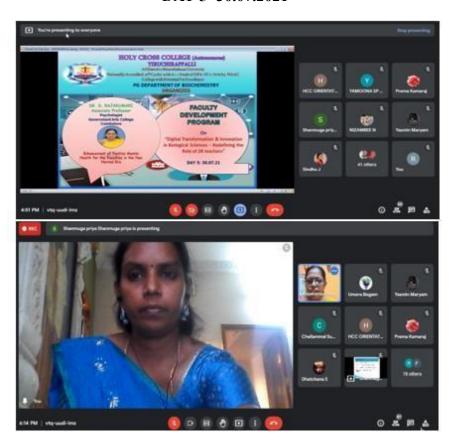
DAY 4- 29.07.2021

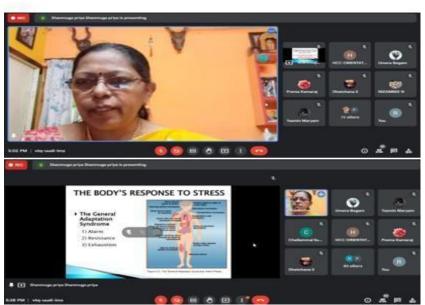






DAY 5- 30.07.2021

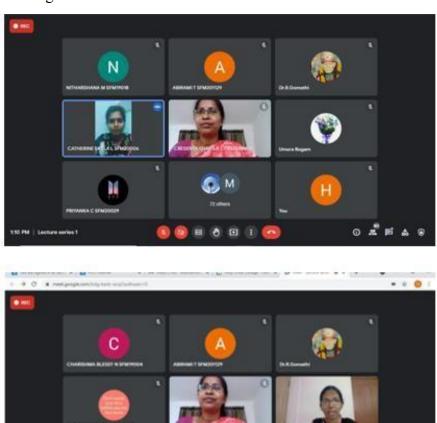






DATE &TIME	RESOURCE PERSON	TITLE OF LECTURE
26.07.21 5:00 - 7:00 pm	Rev. Dr. (Sr.) CHRISTINA BRIDGET, A. Principal Holy Cross College (Autonomous) Tiruchirappalli	Felicitation Inauguration
	DR. SAKTHIVEL VAIYAPURI Professor	Current Technologies in
	Department Of Cardiovascular & Venom Pharmacology, University of Reading, United Kingdom	Biomedical Science
27.07.21 5:00 - 7:00 pm	DR. S. GIRIJA Associate Professor	Virtual Lab on HPLC And Mass
	Department Of Biotechnology, Bharathiar University Coimbatore	Spectrophotometry work flow for Drug Analysis
28.07.21 5:00 - 7:00 pm	DR. P. CHELLAPANDI Professor And Head Industrial Systems Biology Lab Department Of Bioinformatics School Of Life Sciences Bharathidasan University Tiruchirappalli	Systems and Synthetic Biology in Biomedical Sciences
29.07.21	DR. L. STANLEY ABRAHAM Scientist E	Sustainable Bioentrepreneurship
5:00 - 7:00 pm	Centre For Ocean Research (DST-FIST Sponsored Centre) MoES - ESTC Nodal Cell Marine Biotechnological Studies Sathyabama Institute Of Science & Technology (Deemed To Be University) Chennai	- A skill development programme
30.07.21 5:00 - 7:00 pm	DR. S. RAJAKUMARI Associate Professor Psychologist Government Arts College	Enhancement of Positive Mental Health for the Faculties in the Neo
	Coimbatore	Normal Era

On 21st August 2021, in view of the World Innovation and Entrepreneurship Day the department organized a guest lecture on "Innovation & entrepreneurship- Make it happen" from 1.00 pm to 2.00 pm through Google meet platform. The guest speaker for this session was Dr. L. Cresenta Shakila Motha, Assistant Professor, Department of Rehabilitation Science, Holy Cross College, Tiruchirappalli. The guest speaker discussed the key points like innovation, importance of thinking differently, how to innovate, steps in innovation process and Intellectual property rights. The lecture was focused to create awareness among students as to how to think differently to create an innovative product. The speaker also discussed Intellectual property rights and this webinar was an initiative to develop a start-up. Totally 88 students and 7 faculties benefited through this lecture.



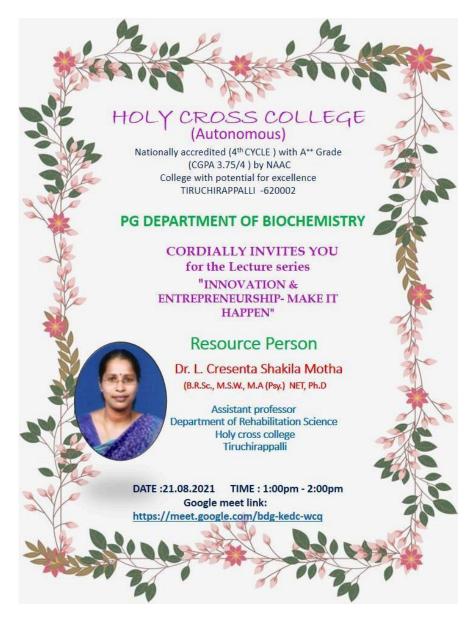
C







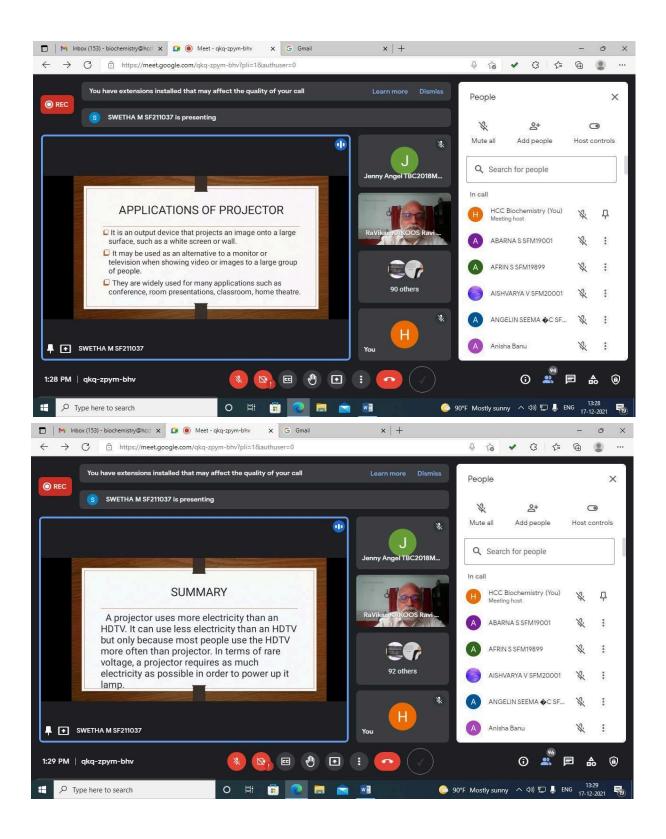


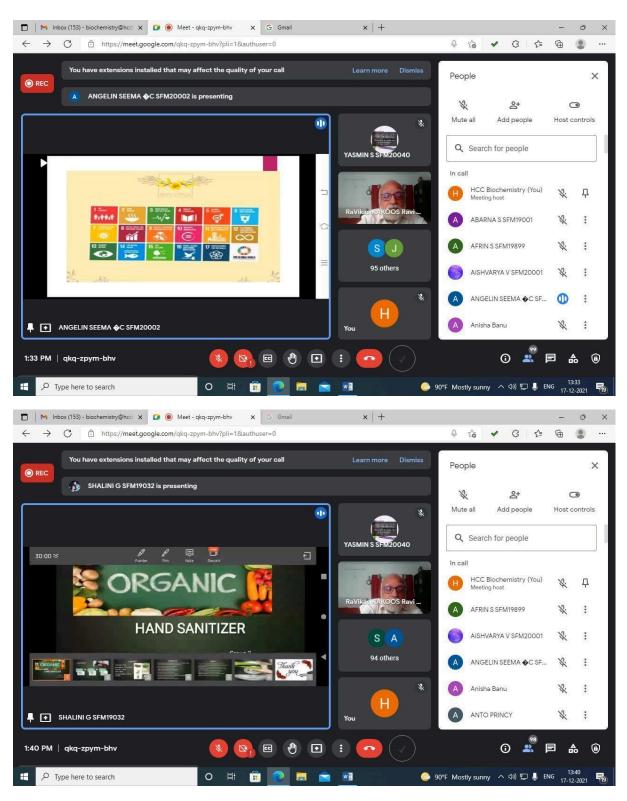


The **Department of Biochemistry** Association organized a guest lecture on "**Herbs - A boon to curb the silent killer**" on 30th **September 2021** by 02.00 PM through google meet platform. The guest speaker for this session was **Dr.** (**Mrs). S. Maneemegalai** Assistant Professor & Head of the Department of Biochemistry, Government Arts and Science College (women), Orathanadu, Thanjavur Dt. The guest speaker discussed key points like Diabetes Mellitus, Types of Diabetes Mellitus, Major complications from Diabetes, Management and Prevention of Diabetes Mellitus, Herbal home remedy for Diabetes, Natural conservation and environmental protection. The lecture was focused to create awareness among students about Herbal home remedies for Diabetes mellitus. The speaker also discussed the scope of Biochemistry. A Total of 82 students and 7 faculties benefited through this lecture.

On 16th December 2021 the department along with HCIIC organized an IDEATHON contest and a guest lecture on "Opportunities and Challenges in Water Hyacinth" through Google meet platform. The guest speaker for this session wasMr. Ravi Senji, Managing Director of Ravikas and Agriculture India Pvt Ltd. The guest speaker discussed the key points like solutions for waste water treatment, Biogas production, less cropping and processing time and nautilus agriculture. The lecture was focused to create awareness among students about the importance of water hyacinth and to encourage the students to create new products for the benefits of society. The speaker also discussed the scope of conventional agriculture. Totally 99 students and 9 faculties were benefited through this lecture.





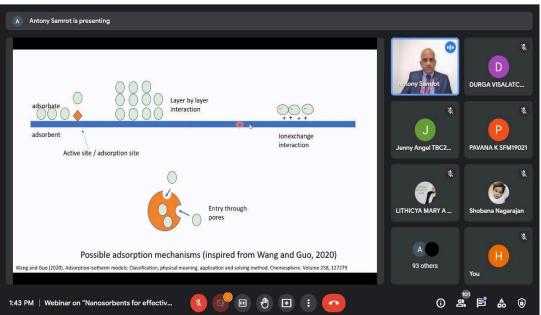


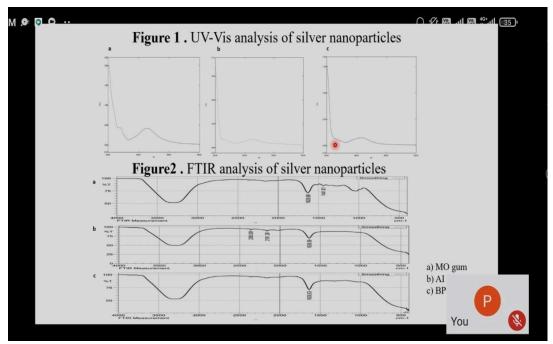
The Ideathon contest was conducted to encourage the generation of innovative new products, services and technologies from our students within Holy Cross College which can become the foundation for new businesses. This session was Level 1 IIC competition where group of students

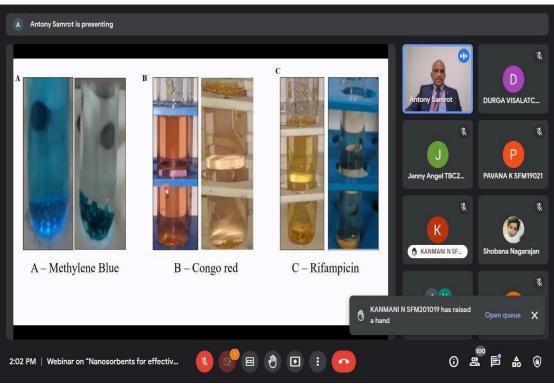
presented their own innovations and explained their ideas to the guest. There were totally 11 teams and each team was given a particular timing of 4-5 minutes to present their ideas. He analyzed their innovative ideas, interrogated each team about their way of implementation and also suggested advice to the students. His advice was very much useful and it inspired the students to upgrade themselves to the next level. Finally, the chief guest evaluated their innovative ideas and declared the results of IDEATHON contest 2021.

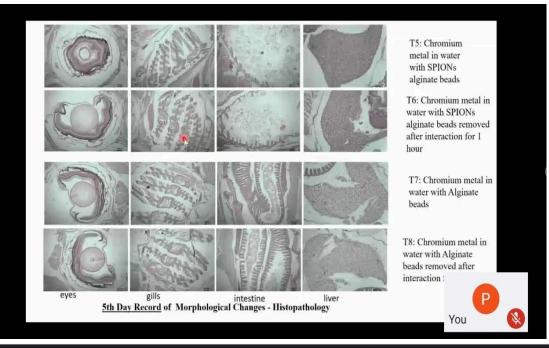
In commemoration of National Science day, the **PG Department of Biochemistry** organized an International webinar on "Nanosorbents for effective removal of dye and heavy metals" on 28th February 2022 by 01:30 PM through Google meet platform. The resource person for this session was **Dr. Antony V. Samrot,** Program coordinator and manager RIE, MAHSA University, Malaysia. He discussed the key points such as the principle of adsorption methods using three different isotherm adsorption methods for effective removal of dye and heavy metals. He also emphasized the need for removing heavy metals from water bodies as they are toxic to human health. He explained the research that was undertaken in his University regarding development of silver nanoparticles of Moringa and neem extracts and SPION for removal of chromium and Rifampicin from polluted water. The efficacy of the removal was analysed by UV- Vis, FTIR, SEM and EDX analysis. The *in vivo* analysis for removal of toxic metals was carried out in Zebrafish was also explained. The speaker also discussed the other applications of SPION in other fields. At the end in the question and answer session the students actively participated. Totally 100 students and 9 faculties benefited through this webinar.

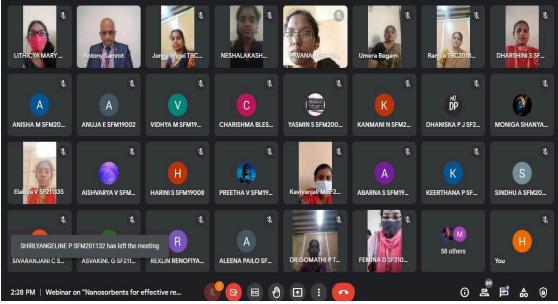


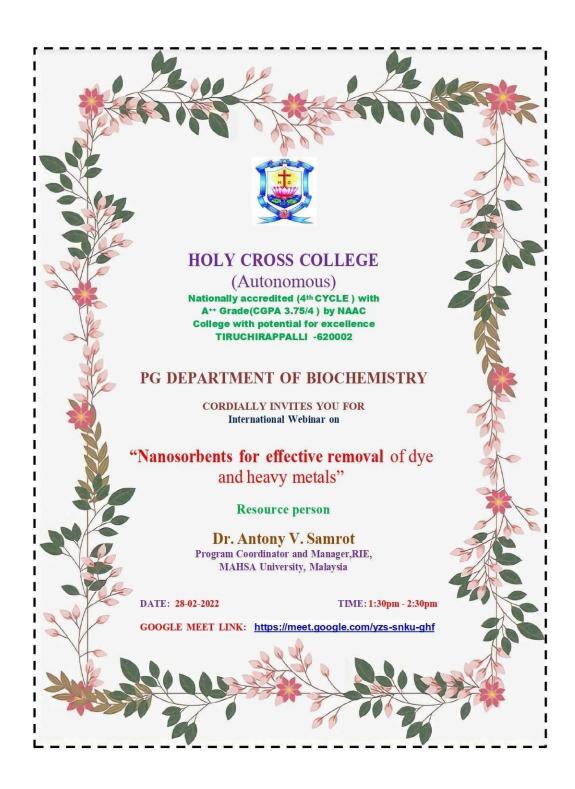












On 24th March 2022 the PG Department of Biochemistry conducted a one day science cum health exhibition programme BIOSCINTILLATORS for the rural school students at Government Higher Secondary School at Thirupanjali. The programme started with the prayer service and lighting of lamps. The exhibition programme concentrated on various intra disciplinary topics in life science on which the students of the department exhibited various models, powerpoint presentations, chart works, experiments and videos pertaining to relevant topics. The school students involved themselves in the programme and actively participated in all the interactive games. The following topics were presented: Scope of Biochemistry, Nutrition and Hygiene, Human physiology, Immunology, Hb testing & BMI, Infection and Prevention, Food Adulteration, Environmental awareness and Information corner was also set up. This program served as a good interactive approach between school and college students and paved a very helpful way for their development. A total of 500 school students benefited from this programme.











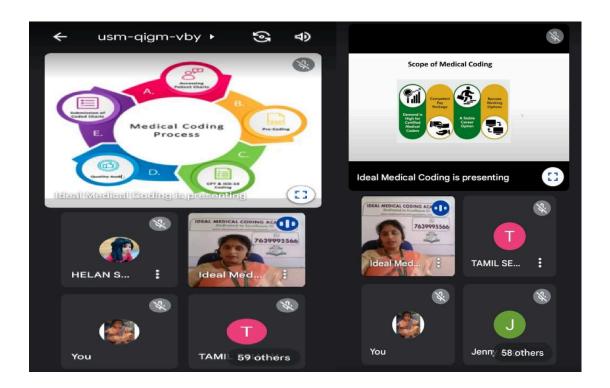






The **Department of Biochemistry** Association organized a guest lecture on "Scope of Medical coding" on 08th April 2022 by 02:00 PM through Google meet platform. The guest speaker for this session was Regina Elizabeth. A, Head trainer, Ideal medical coding academy, Coimbatore. The guest speaker discussed the key points such as the revenue cycle management, medical coding process, certified professional coder certification, AAPC certifications and scope of medical coding. The lecture was focused to create awareness among students about medical coding. The speaker also discussed career opportunities in medical coding. Totally 61 students and 9 faculties benefited through this lecture.



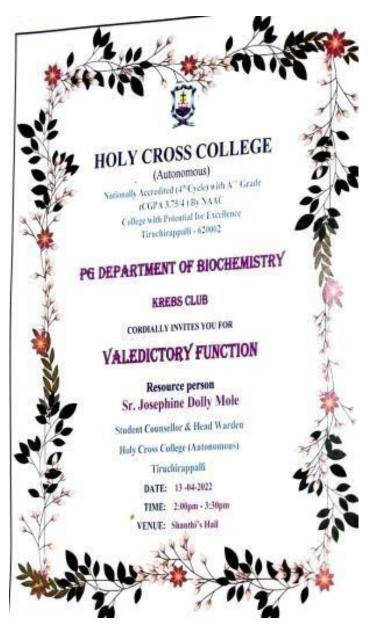


On 13th April 2022 the association Valedictory function was organized at Shanthi's hall. The guest speaker for this session was **Sr. Josephine Dolly Mole, Student counsellor and Head warden, Holy cross college, Tiruchirappalli**. The guest speaker gave an inspiring talk on how to believe on oneself. She shared her life experiences and motivated the students to develop courage to face any struggles and challenges. She also spoke on how to set goals and as how to achieve them. The chief guest also disturbed the trophies to the prize winners of the competitions conducted by the Department on Jubilee year celebration. Totally 70 students and 9 faculties benefited through this lecture. It was an inspiring and motivating session.









On 23rd April 2022, a webinar on "Human microbiome and probiotics, Entrepreneurial opportunities and challenges" was organized along with HCIIC. The resource person was Dr. G. Velmuurugan, Scientist, Department of Biochemistry and Microbiology, KMCH Research Foundation, Coimbatore.

