REPORT ON THE XILINX –WIT 2021
(THIRD QUARTER)

SRM Institute of Science and Technology SRM IST
College of Engineering and Technology CET

1) STEM program activity(April'22)

As mentioned in the earlier reports, STEM is based on the idea of educating students in four specific disciplines - Science, Technology, Engineering and Mathematics in an interdisciplinary and applied approach.

The STEM activity of this quarterly period was focussed on women students studying in polytechnic colleges.

Activity :

⇒ **Event: Career Guidance for women students in polytechnic colleges**
Resource person: Dr. T. S. Shiny Angel, Department of Computational Intelligence

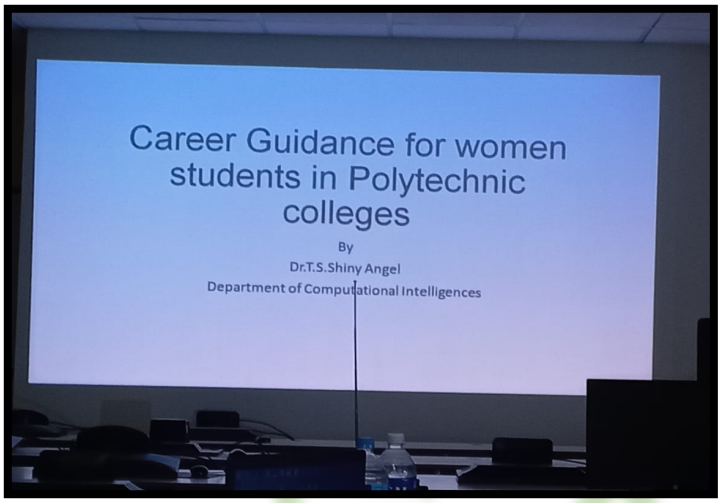
Objectives :

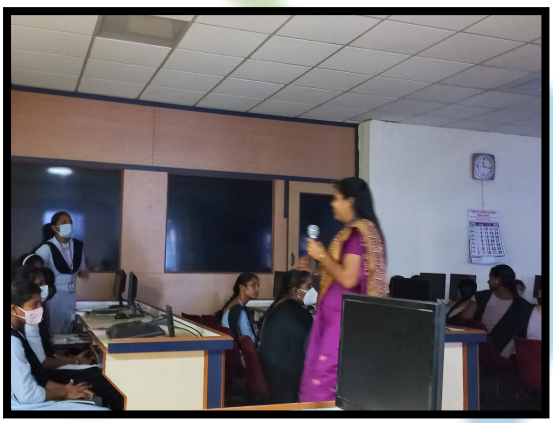
To provide guidance to the students on various options available in the course of their study.
To identifying and developing Students abilities and interests.
To help the students to solve their Personal, Educational and Psychological problems.
To develop positive attitude and behavior in order to meet challenges
To create awareness among the students for their future Profession.
To provide information to the students on the scope and relevance of any area irrespective of their field of interest.
To recognize their strength overcome and weaknesses.

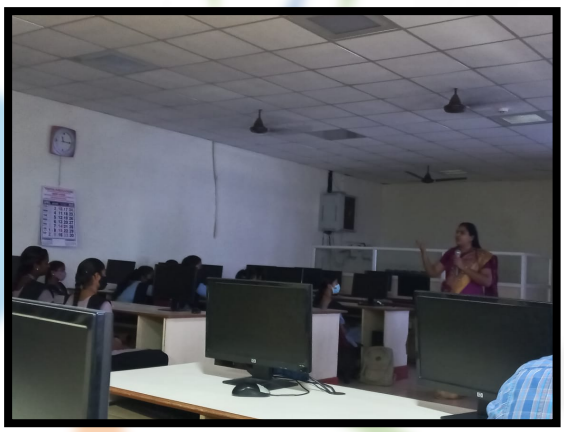
Program outcomes:

Basic knowledge: An ability to apply knowledge of basic mathematics, science and engineering to solve the engineering problems.
Discipline knowledge: An ability to apply discipline - specific knowledge to solve core and/or applied engineering problems.
Experiments and practice: An ability to plan and perform experiments and practices and to use the results to solve engineering problems.
Apply appropriate technologies and tools with an understanding of the limitations.
The engineer and society: Demonstrate knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering practice.
Environment and sustainability: Understand the impact of the engineering solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.
Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
Individual and team work: Function effectively as an individual, and as a member or leader in diverse/multidisciplinary teams.
Communication: An ability to communicate effectively.
Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the context of technological change.

Picture gallery:


Career Guidance for women students in Polytechnic colleges
By
Dr.T.S.Shiny Angel
Department of Computational Intelligences





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***2)*Guest Lecture (May'22):**

Event: Seminar on "Motivation for Higher Education"

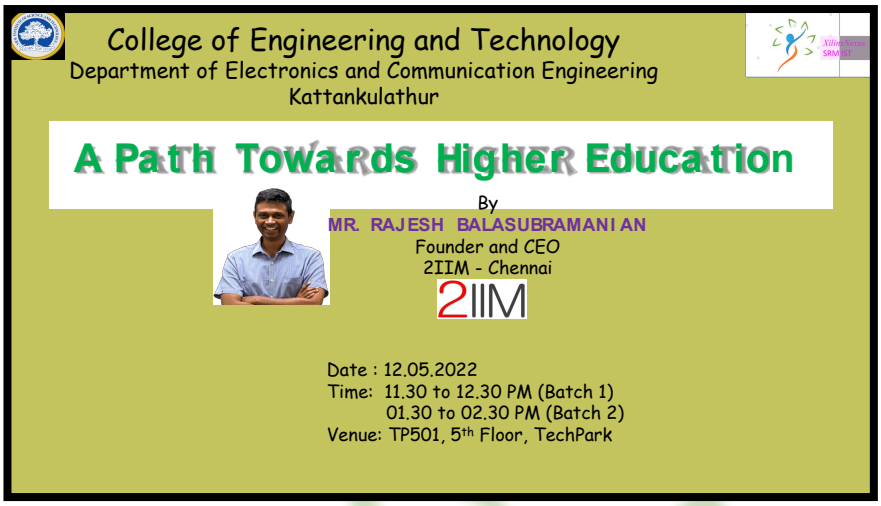
A seminar was arranged for second year students for motivation towards higher education by 2IIM on 12.05.2022 at 11:30am and 1:30 pm for batches 1 and 2 respectively.

Resource person: Mr.Rajesh Balasubramanian ,Founder and CEO, 2IIM, Chennai

The webinar covered the following:

- Importance of higher education
- Prerequisites of higher education
- Career benefits of higher education
- Social value of higher education
- Personal benefits of higher education

Picture gallery:



***3)*Ethical Clearance for real-time implementation of our proposed hardware model:**

Research objective proposed: Breast cancer detection using ML / deep learning models and its implementation in AI accelerated boards.

The proposed idea was presented infront of the Institutional Ethical Committee(IEC) of SRM Medical College and Hospitals ,Kattankulathur, Chennai on 25.05.2022 for obtaining real-time samples to be tested on the proposed model.

The peer-view committee approved the study and granted the ethical clearance.

The real time data will be collected from the patients attended at SRM Medical College and Hospital.

The study will be carried out under the guidance of a qualified radiologist for qualitative analysis of the subjective results. The details of the radiologist is given below for your kind perusal.

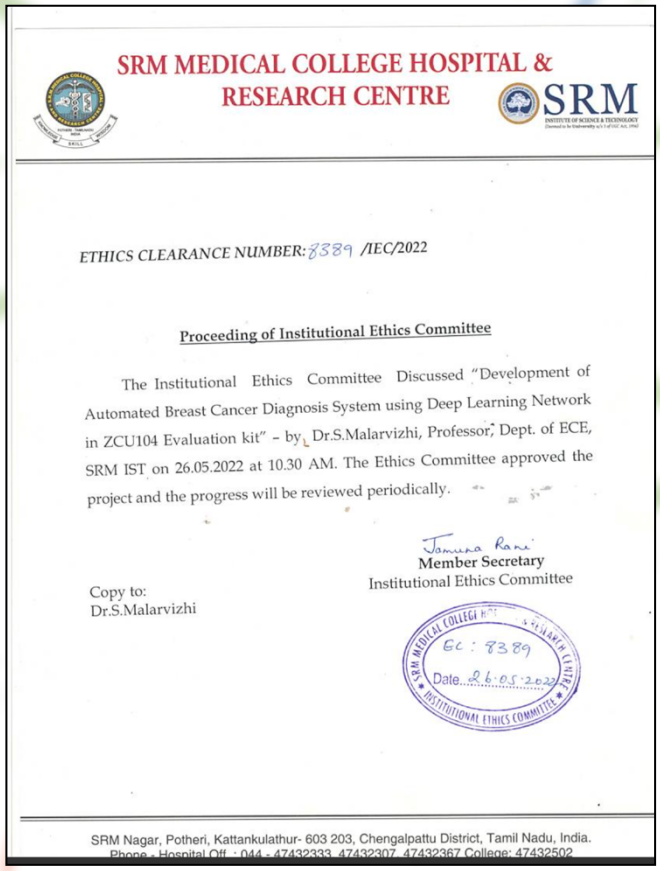
Dr.A.Senthil Kumar.,MD
Professor and Head
Department of Radio-Diagnosis
SRM Medical College and Hospitals
Kattankulathur,Chennai,India
Experience : 16 years

Recent Publications

1) Senthil Kumar Aiyappan., Padala, K., Kumaran, S. et al. Falciform Ligament Torsion Presenting as Acute Abdomen. Indian J Surg (2020).
2) Senthil Kumar Aiyappan., Vinchurkar, K.N. &Shanmugam, V. XanthogranulomatousUrachitis. Indian J Surg (2020).
3) Senthil Kumar Aiyappan, MeenakshiKochuvilayil Rajeev, Aparajita Singh, Vinayagam Shanmugam. Imaging manifestations of corona virus disease 2019(COVID-19) on CT chest: A pictorial review. African Journal of Respiratory Medicine. (Vol 15 No 1 Sep 2020).
4) DineshramVijayan, Vinayagam Shanmugam, SenthilkumarAiyappan, PremkumarChidambaram.Diagnostic accuracy of high resolution ultrasonography in

comparison with MRI for evaluation of rotator cuff pathologies. International Journal of Contemporary Medicine Surgery and Radiology. 2020;5(2):B8- B12.
5) PriyankaKalaiarasan, SenthilkumarAiyappan, Vinayagam Shanmugam,ParminderPurewal. Diagnostic Accuracy of Thyroid Imaging, Reporting and Data System Combined with Strain Elastography in the Evaluation of Thyroid Nodules. International journal of anatomy,radiology and surgery. 2020 Oct, Vol-9(4): RO12-RO15
6) Gokulakrishnan Raman, Senthil Kumar Aiyappan, Vinayagam Shanmugam, Premkumar Chidambaram, Sinduja Paul. Association of Intracranial artery stenosis and carotid artery disease in patients with non-alcoholic fatty liver disease and normal subjects. International Journal of Contemporary Medicine Surgery and Radiology. 2020;5(3):C97-C102.
7) Dr. Dinesh Ram.V, Dr. Vinayagam. S, Dr. Senthil Kumar, "Assessment of Acromial Morphology in Association with Supraspinatus Pathologies Using MRI", International Journal of Science and Research (IJSR), Volume 9, Issue 3, March 2020.

Copy of the obtained Ethical Clearance:



SRM MEDICAL COLLEGE HOSPITAL & RESEARCH CENTRE

SRM

ETHICS CLEARANCE NUMBER: 8389 /IEC/2022

Proceeding of Institutional Ethics Committee

The Institutional Ethics Committee Discussed "Development of Automated Breast Cancer Diagnosis System using Deep Learning Network in ZCU104 Evaluation kit" - by Dr.S.Malarvizhi, Professor, Dept. of ECE, SRM IST on 26.05.2022 at 10.30 AM. The Ethics Committee approved the project and the progress will be reviewed periodically.

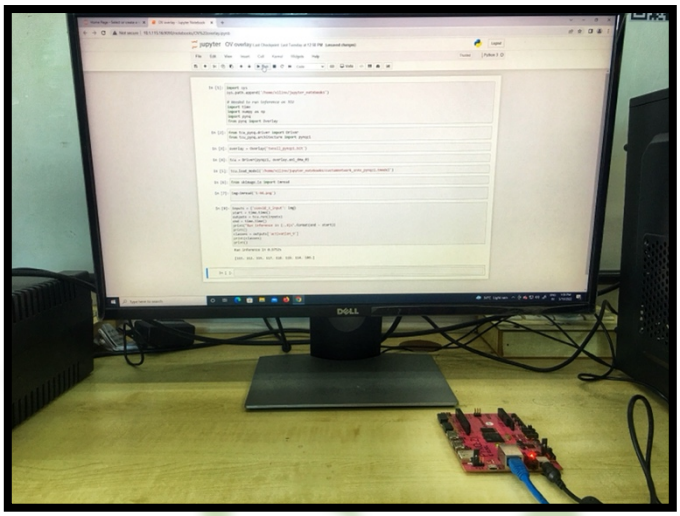
Jamuna Rani
Member Secretary
Institutional Ethics Committee

Copy to:
Dr.S.Malarvizhi

EC : 8389
Date: 26.05.2022

SRM Nagar, Potheri, Kattankulathur- 603 203, Chengalpattu District, Tamil Nadu, India.
Phone - Hospital Off. : 044 - 47432333, 47432307, 47432367 College: 47432502

***4)*Development of the hardware model(June'22)**

The Research Assistants working under the Xilinx Women In Technology Project have been working on deploying the Hardware Model of the proposed breast cancer diagnosis network.

The piolet model has been programmed and an ovelay was performed on the pynq board. The observations are being evaluated.