

(Approved by AICTE, Affiliated to Anna University, Chennai) No.27, Thayanur ,Dindigul Road, Trichy 620009 https://care.ac.in/engineering/

NEWS LETTER

DECEMBER 2022 ISSUE 02

ECE BUZZ

EDITOR Gokul R (III ECE) MEMBER OF EDITORIAL BOARD Krishnamoorthi S (III ECE)

VISION AND MISSION

VISION OF THE INSTITUTION

Transform lives through Education and Research

MISSION OF THE INSTITUTION

To impart quality education to students through critical thinking, creativity, leadership and the spirit of entrepreneurship

VALUES OF THE INSTITUTION

We develop in each member the ability and passion to work effectively for the betterment of humanity with cultural awareness, high ethical and moral values and a sense of social responsibility

DEPARTMENT VISION

To produce globally competent Electronics and Communication Engineers.

DEPARTMENT MISSION

M1: To Impart Value-based Technical Education with a state of art technologies to meet industry standards.

M2: To foster critical thinking and creativity through research and experimentation.

M3 : To prepare our students to be a lifetime professional with Creativity and Leadership.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO 1 – Shall pursue higher education and research, or have a successful career in industries or as entrepreneurs.

PEO 2 – Shall have the ability and attitude to adapt to emerging technological changes.

PEO 3 - Shall exhibit leadership abilities, professional ethics, communication skills, interpersonal skills and life-long learning.

PROGRAM OUTCOMES (POs)

PO1 - Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 - Problem analysis: Identify, formulate, review research reaching literature, and analyze complex engineering problems substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 - Design/development of solutions: Design solutions for complex engineering problems and design system components or appropriate that meet the specified needs with consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4 - Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6 - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 - Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 - Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 - Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11 - Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12 - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OBJECTIVE (PSOs)

Students of the Electronics and Communication Engineering Program

PSO1 - Shall have Potential to analyze, design, synthesize and provide technical solutions in the field of VLSI, Embedded Systems, Communication, Networking and Real Time Processing.

PSO 2 - Shall exhibit leadership skills and pursue entrepreneurship and contribute field of Electronics and Communication Engineering.

Five day workshop on Automation using IoT

A Five day workshop on Automation Using IoT", Organized by Department of ECE from 25.7.2022 to 29.7.2022. This Five Days work shop was conducted for Second and third year ECE students

The workshop was started on 25.7.2022 at 9.30 AM, the First session was handled by Ms. R.Vanitha, Assistant Professor/ ECE, CARE College of Engineering, followed by session was handled by the next Ms.R.Deepalakshmi, Assistant Professor/ CARE College of Engineering. ECE. Afternoon session was handled bv Ms.M.Shiva Shankari, Assistant Professor/ ECE. CARE College of Engineering.

The second day session was handled by Mohamed Nizarudeen M & Ms.V.Gomathi, From department of CSE. For the Third day session we invited Mr. Baranidharan.G , Barun, IT solution , Trichy, gave a hands on session on automation of sensor using servomotor.

Fourth and Fifth day we invited our distinguished Alumni Ms. B.Janani, TCS, Chennai; she guided our student to do Hands on session on Basics and working of Arduino and it's Application on 29.7.2022. Also students were assigned with projects based Arduino.

At the end of the day, Student done projects on Home automation using Ardinuo and Obstacle Avoider. It was great learning experience for our students and also this workshop motivated them to do the projects on their own







CARE

Affiliated to Anna University, Chennai)

Inauguration of

A FIVE DAY SHORT TERM

TRAINING PROGRAM

(STTP) ON ANTENNA DESIGN:

FUTURE TRENDS AND NEW APPLICATIONS

(Virtual mode)

(August 1st - August 5th,

2022)

In Association with

IEEE CARE STUDENT

BRANCH - MADRAS SECTION



Department of Electronics & Communication Engineering



Chief Guest

Dr.S.Shanthi, M.E, Ph.D Director CARE College of Engineering Trichy

> 01 August 2022 @ 10.30 AM

Contact Us

No.27, Thayanur ,Dindigul Road, Trichy 620009 https://care.ac.in/engineering/

The third day FN session was by Mr. T. JAYANANDAN M.E., (Ph.D), Assistant Professor, VIT, Vellore, Founder/CEO, Tesla Minds, Chennai on the topic of "Antennas for future Wireless Applications". He explained the research trends in antenna design and the AN session was a demonstration of the CST tool for antenna design. He took one Research paper and demonstrated the design and working of the antenna. The session was very useful from a research point of view.

The fourth day starts with the presentation of Dr.S.Imaculate Rosaline, Assistant Professor, Ramaiah Institute of Technology, Bengaluru on the topic of "Microstrip based Meta material Inspired antennas". The session was very useful and many research scholars were impressed by the session.

The Final day starts with the presentation by Dr. P.Geetha, Associate Professor, P.R Engineering College, Thanjavur, on the topic of "Antennas for Radar, Space and Military Applications".

We received registrations from Haryana, Odisha, Andhra Pradesh, Telangana, Madya Pradesh, Karnataka, Gujarat and West Bengal.

SHORT TERM TRAINING PROGRAMME ON ANTENNA DESIGN: FUTURE TRENDS AND NEW APPLICATIONS

Department of Electronics & Communication engineering of CARE College of Engineering in association with IEEE CARE student branch organized A Five day STTP on "Antenna Design : Future Trends and New Applications" in online mode from 01.08.2022 to 05.08.2022.

The STTP focused on the recent research issues, challenges, Future Trends and new applications in antenna design. The programme started on August 01, 2022 by 10.30 am with the welcome address by Ms.Raja Rajeshwari of IV ECE Student. The dignitaries during the session were Dr.S.Shanthi, Principal, CARE College of Engineering, Dr.S.Raghavan, NIT, Trichy felicitated the function by giving the opening remarks and the applications in the real world.

The Morning session was handled by Dr.S.Esther Florence, Associate Professor, SSN College of Engineering, Chennai on "Wearable Antennas for Telemedicine applications" and explained the challenges and research issues in it. CST microwave studio hands on session were given to participants in the afternoon session.

Second day session was on "Modeling of 5G antenna with wideband or Dual band functionalities" handled by Ms.V.Roja, PMRF Scholar, National Institute of Technology, Trichy. She explained the concept of wideband and dual band functionalities and modeling of 5G antennas and shared her experiences in ISRO and SAMEER.

MOU WITH IPCS GLOBAL SOLUTIONS PVT. LTD

CARE College of Engineering, Trichy and IPCS Global Solutions Pvt. Ltd, signed a Memorandum of Understanding (MoU) on 26/08/22 for collaborative initiatives in the department of Electronics and Communication Engineering.

The MoU will pave the way for joint projects, Seminars, Workshops, training of faculty members of concerns, Internships and Industrial visits for students.

Dr.S.Shanthi, Principal CARE college of Engineering and Mrs.S.Pon Suganthi, Branch Head, IPCS Global, Trichy signed MoU in presence of Dr.A.Pasumpon Pandian, Dean(Research & Samp; Development), Dr.J.Jeyarani, HoD/ECE, and Mrs.R.Vanitha,Assistant Professor/ECE and all the faculty members of ECE.







Smart India Hackathon 2022 – Participation in Finale



SIH2022, two projects For were submitted from the Department of ECE. One problem statement is "Pattern recognition algorithm to identify marine animals" under the ministry of National Institute Of Ocean Technology, **Ministry Of Earth Sciences and** another problem statement is "Identification and location of voids in earthquake scenario" under the ministry of National Disaster Response Force (NDRF) under the Guidance of Mrs.R.Deepalakshmi / AP-ECE.





SIH2022 Hardware edition dates and Nodal centres were announced by SIH team through Team Leaders mail. Hardware Edition dates are from 25.08.2022 to 29.08.2022 (05 days)



Ms. SHIFANA BECUM.K Mr. KANCHU LOKESH Mr. GOKUL.R Mr. SAMRUTH SRIRAM.D Mr. REEGAN RUSOUL.L Ms. RAJA RAJESWARI.S



Mr. PRADEEPARAJAN.T

www.sih.gov.in

ECE – Industrial Visit to Amul Chocolate Factory

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Industrial Visit was arranged in Amul Chocolate Factory, Anand Citv. Gujarat on 30.08.2022 for the II, III & IV ECE Students. Four Students and one Faculty Visited the factory to understand the concepts of Robotics, Automatic Working of Machines in Realtime Systems. **RTOS** concepts, Networking of **Systems**

GPS Mad Ca

The following students and faculties were visited the chocolate unit.

- I. R.Deepalakshmi (AP-ECE)
- 2. S.Raja Rajeswari (IV ECE)
- 3. Kanchu Lokesh (III ECE)
- 4. D.Samruth Sriram (II ECE)
- 5. L.Reegan Rusoul (II ECE)



Techno Frenzy V5.0

The Department of ECE conducted "Techno Frenzy V5.0" a Department level contest with non technical events. This year Techno Frenzy V5.0 received an overwhelming response in all its events and was a magnificent success.

The word "Techno Frenzy" comes from uncontrolled and excited behavior or emotion that is sometimes called over involvement in activities. "Techno FrenzyV5.0" is organized with zero budget, conducted by our department students alone.

The motive of this event is to develop various skills of students in Co-Curricular activities and to expose them to the current trends in the technical and professional fields.



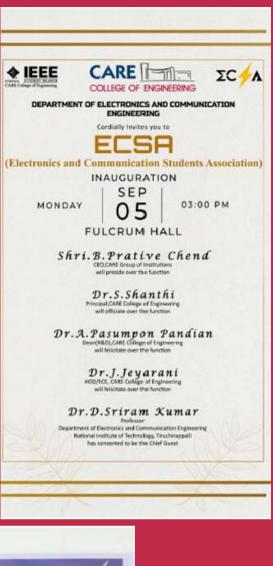




ECE Inauguration

The formal inauguration of ECE student Association 2022 'ECSA' was held on September 05, 2022, at 03.30 p.m. by Dr.D.Sriram Kumar, Professor/ECE, NIT, Trichy.







A small video regarding the activities of the association held in the previous year was revealed during the program.Newly elected office bearers were introduced by Dr.J.Jeyarani, HoD/ECE on this occasion. Newly elected president Ms. Rajarajewari presented the plan action for this academic year and gave a detailed description of all the events that ECSA has planned to conduct this year such as the National Symposium, Mini project expo and other technical activities.

INDUSTRIAL VISIT TO AAVIN DAIRY



Experiential education is the best form of learning. CARE College of Engineering, Trichy always encourages our students to have real time experience by visiting industries for practical learning. On that node, our students visited Tiruchirapalli District Cooperative Milk Producers Union Ltd.,(Aavin Dairy) plant to get practical experience in the dairy production and Waste Water treatment Process carried over in the plant. A total strength of 43 students and 11 faculty members from the Department of ECE visited the dairy on 22nd of September, 2022.

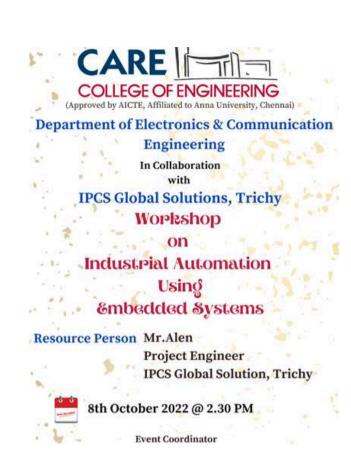
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The Department of ECE organized a Workshop on "Industrial Automation using Embedded Systems" on 08.10.2022. Dr. J.Jeyarani, Head of the ECE Department inaugurated the workshop and briefed about the current and future technology. After the introduction, Special Guest Mr.Alen, Project Engineer, IPCS Global Solution, Trichy delivered lecture on "Industrial Automation using Embedded Systems". More Than 40 students attended the Workshop.

The workshop was initially started with the introduction to industries followed by its general classification into sectors.

Then continued with the introduction to automation in industries, impact of automation and current emphasis of developed automation in industries, followed by the main tools of automation which are, Artificial Neural Network(ANN), Distributed Control system(DCS),Human Machine Interface(HMI),Supervisory Control and Data Acquisition. Finally conclude how it will be helpful for the community. photographs.

The guest lecture was coordinated by Mrs. R.Vanitha, AP/ECE.





Guest lecture on "Embedded Systems – Industrial Application" on 14.10.2022 ② 2 PM, and it was coordinated by Mrs. R. Deepalakshmi, AP/ECE.

Mrs. R. Deepalakshmi, AP/ECE gave the welcome address and introduce the guest Ms. B.Janani, Assistant system Engineer, TCS , Chennai.

The aim of the guest lecture series is to equip students with the latest theories and practices in the Embedded Systems – Industrial Application. She gave a brief idea about how to design an embedded system by identifying the problems from day to day life. And also she explain what are the current project going on in Industries in embedded domain



Guest lecture on "Optical Networks-SONET/SDH and Optical Measurement Techniques

The Department of ECE organized a Guest lecture on "Optical Networks-SONET/SDH and Optical Measurement Techniques" held on 17th October 2022. The Program was started with a warm welcome address given by S.Raja Rajeswari IV ECE.

The guest lecture pays the way to explore various ideas about optical fiber measurements and various coupling techniques. And also it helps the students to enrich the knowledge about optical communication systems and networks. The lecture ended with the vote of thanks given by Afrose Jamila III ECE.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING GUEST LECTURE ON OPTICAL MEASUREMENTS AND NETWORKS



S.Senthil Rajan M.E.,MBA,M.Phil

AP/ECE, SRI VENKATESWARA COLLEGE OF ENGINEERING, SRIPERUMBUDUR





GUEST LECTURE ON "REAL TIME APPLICATION ON DSP"



he Department of ECE organized a Guest lecture on "Real time Application on DSP " on 19.10.2022 @ 2 PM , and it was coordinated by Dr. J.Jeyarani, Professor and Head of ECE.

Mrs. J.S.Jenin AP/ECE gave the welcome address and introduced the guest Ms. Gandhimathi, Assistant Professor, SRM TRP Engineering College. The guest lecture is planned to provide the knowledge towards the application oriented DSP. This is the content beyond the syllabus which will support self-learning and motivate for life-long learning for the student participants.

The important takeaway of the session was the students learnt about the practical aspects about DSP Architectures . The vote of thanks to the speaker was given by Dr. J.Jeyarani, Professor and Head of ECE.



MY STORY-MOTIVATIONAL SESSION BY SUCCESSFUL INNOVATORS



This Programme was organized by Institution Innovation Council of CARE College of EngineeringK.Saravanan AP/AIDS (IIC President) delivered the welcome address. Dr.D.R.Rajkumar presided over the function and encouraged the students about the Innovation in current technology. P.Dinesh Kumar introduced the Chief Guest "Mr.P.Prasanna" and he gave confidence to the participants and brief about the current and future technology and Motivated them towards the future technologies need and Innovators Opportunities available in the State and Central Government. Feedback form was collected from all the participants.

MY STORY – MOTIVATIONAL SESSION BY SUCCESSFUL ENTREPRENEUR / START UP FOUNDER



This Programme was organized by Institutions Innovation Council of Care College Of Engineering and Department of Electronics and Communication Engineering .This was conducted for the IIIrd and IV year students belonging to various departments at Fulcrum Hall on 02.11.2022. This event was coordinated by Ms.R.Elavarasi AP/ECE .Mrs.Archana Ganapathy, Entrepreneur presided over the function. Mrs.Archana Ganapathy delivered an interesting session on entrepreneurship and its challenges. She shared her experiences in this field. Further, she told the audience that whole stepping into start-ups, they will definitely face many challenges. But if they move on with determination and hard work, they will reap success. Queries were answered by the guest patiently. Students found the session useful. Finally, vote of thanks was given by R.Elavarasi AP/ECE.



Guest Lecture



Online Guest Lecture on the occasion of Women's Entrepreneurship Day on 19 November 2022

Department of Electronics and Communication Engineering and Women empowerment cell jointly organized an online guest lecture on the occasion of Women's Entrepreneurship Day on 19th November 2022 . Mrs.Shyamala Rajkumar, Founder of "Masala Twist", Trichy was the chief guest.

The Chief Guest, Mrs. Shyamala Rajkumar shared her entrepreneurial journey with the students. She said that only with self motivation she was able to reach the level of success.





Guest Lecture on Stub Matching using Smith Chart

Guest lecture for the Final year ECE Students to understand the topic of Stub matching using smith chart in EC 8701- Antennas and Microwave Engineering. In unit-5 the above topic was planned to handle through guest lecture to make the students better understanding. The guest lecture was conducted on 7.11.2022 at 10.00 a.m in DSP Lab with invited speaker Mrs.R.Annapoorani, Assistant Professor, Department of ECE, from MAMCET, Trichy. Dr.J.Jeyarani, HOD\ECE presided over the welcome address and the lecture was conducted successfully and ended with a thanks note by Mrs.M.Shiva Shankari, AP\ECE.

MEMORANDUM OF UNDERSTANDING (MOU) WITH KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION



CARE College of Engineering, Trichy(CARE) and Kalasalingam Academy of Research and Education(KARE) signed a Memorandum of Understanding (MoU) on 23/11/22 for collaborative initiatives with the Institution.



Dr.S.Shanthi, Principal CARE college of Engineering and Dr. V.Vasudevan, Registrar, Kalasalingam Academy of Research and Education(KARE) signed MoU in presence of Dr.A.Pasumpon Pandian, Dean(Research & Development), Dr.J.Jeyarani, HoD/ECE and Mrs.R.Vanitha, Assistant Professor/ECE and all the faculty members of ECE.

The MoU will pave the way for joint research, Training, internship programme, Faculty member & Student exchange Programme.



Department of ECE organized a Webinar on "Microprocessors 8086 & Microcontrollers 8051". Resource Person Mr.G.Parameswaran Assistant Professor/ECE, SRM TRP Engineering College, Trichy delivered a wonderful lecture on Assembly language coding of 8086 for III year CSE students. Mrs. J.S.Jenin, AP/ECE extended her thanks and concluded the Webinar.

WEBINAR ON "MICROPROCESSORS 8086 & MICROCONTROLLERS 8051

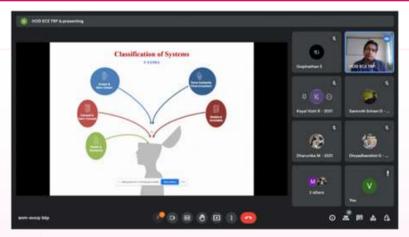




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16 November 2022 @ 2.30 PM

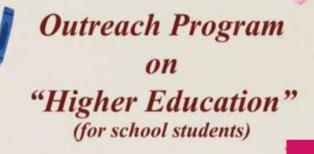
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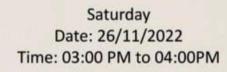


Department of Electronics and Communication Engineering organized a Guest lecture on "Signals and Systems" on 16th November 2022. Resource personDr.Ramasubraminan, Associate Professor, HoD/ECE, SRM TRP Engineering College, Trichy. He had a strong knowledge on Signals and Systems and handled the paper for more than 10 year. He showed more interest in interacting with the student community. He gave brief content on objectives and Important topics for exam point of view. It was very useful for the student.



The main objective of the community outreach programme is to meet the mission and vision of our college. The Department of ECE, CARE College of Engineering conducted an Outreach Program at Holy family RC Higher Secondary School, Ammapettai, on 26th November 2022.





Venue: Holy Family R C Higher Secondary School Ammapettai, Trichy-620 009 Around 150 students from 11 & 12 std (Science, Biology, Computer science), with the help of 3 student volunteers from III ECE, a few science teachers from the school. The duration of the programme was 4 hours from 3.00 pm 4.00 pm. The event was divided into two sections involving first secion gave awareness about NEET and Second section gave awareness about JEE.



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UPCOMING EVENTS



writing tips & tricks

Writing a research paper is a challenging and essential task in the teaching and research career. Publication finds a valuable place in resume and shows our accomplishments. Communication skills and ability to understand & relate to what has been learnt. It indicates one's academic research calibre. This FDP gives clear insight about writing a research paper. All your doubts w.r.t. journal publication will get cleared, the topics (to be learnt from HORSE's MOUTH) of the FDP. Difference between a review and research

- paper. Tips for writing scientific paper How to create keywords for a research paper.
- Outline of a research apper. Comprehensive citation list and methods to follow.

- Reference in paper. How to cite reference in a paper. Getting the right title of the research paper. Avoid grammar and mistakes in writing How to keep the paper away from unethical
- practises. Plagiarism
- Journal Editor's Expectations How to structure an original research paper. Do's and Dont's in formatting a paper.

of **Electronics & Communication** Department Engineering (Anna University Approved Nodal **Research Center) conducting One Day National Level Online Workshop on Research Paper Writing on 1st** April 2023

Eligibility : The FDP is open for Faculty members, **Research Scholars and PG students**

Registration link : http://bitly.ws/AjUS

For Brochure : Click Here

International Conference On Information and Communication **Engineering (ICICE '23)**

Department of Electronics & Communication Engineering organising International Conference On Information and **Communication Engineering (ICICE '23)** (27.04.2023 & 28.04.2023)

Last Date for Submission of Full Paper : 08.04.2023

Notification of Acceptance : 15.04.2023

Last Date of Registration (Online) 22.04.2023

UPCOMING EVENTS

CARE

Department oF ECE Activity Plan - Even sem - 2022-2023

| Event | Program | Date |
|-----------------------------------------------------------|--------------------------------|-----------------|
| STTP on Antenna design | Co- Curricular Activity | December |
| VAC | Co- Curricular Activity | Semester break |
| Internship | 100 W | Semester break |
| Winter workshop | Co- Curricular Activity | January 4 week |
| Newsletter | Co- Curricular Activity | Feb 1st week |
| Alumni Meet(Interaction) | Alumni guest lecture | Feb 3 rd week |
| Outreach program for School Students/ Technical | Out Reach Program | Feb 2nd week |
| Paper Presentation for department students | Co- Curricular Activity | feb 4th week |
| Inter departmental Cutural Activity | Extra Curricular Activity | March 1st week |
| Project Expo | Co- Curricular Activity | March 2nd week |
| Hackathon / Project Expo for poly /HSC students | Out Reach Program | |
| Symposium | Extra Curricular Activity | March 3 rd week |
| International Conference | | April 4 th week |
| Industrial visit | Co- Curricular Activity | March 4 th week |
| STTP/FDP/Workshop for outside participants | FDP | |
| Industrial Training | Co- Curricular Activity | April 4 th week |
| Guest lecture series | Guest lecture(2 Per Subjects) | Two Per Subject |
| Gate/Higher studies/Govement exam Coachings/ Technical | Extra Curricular Activity | All saturdays |