



DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

A NAAC Accredited Institute

An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

Circular

This is to inform all the students that Project Review Committee is going to conduct a Two Day Workshop on **Introduction to Robotics** on 12th and 13th July 2019 from 8:30 am onwards in Seminar Hall I. Students are instructed to actively participate in the event.

R&D Convener



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Date: 04-07-2019

Anakapalle

To

The Principal,

Dadi Institute of Engineering & Technology

Anakapalle, Visakhapatnam.

Sub:

Respected Sir,

We, the Research Committee, would like to conduct a Two day workshop on **Introduction to Robotics** on 12th and 13th July 2019. In this regard, we request you to give us approval to conduct this event in Seminar Hall I from 8:30 am onwards on the above mentioned dates.

Thank You Sir,

Yours faithfully

R&D Convener



DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

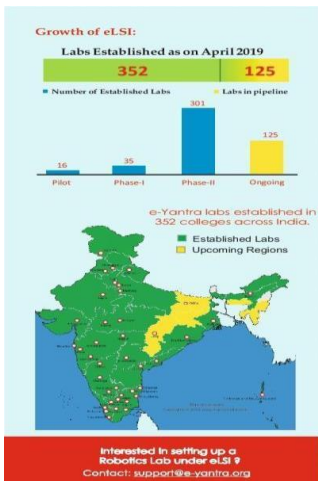
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e-Yantra Brochure



e-Yantra Competitions:

For Students:

e-Yantra Robotics Competition (eYRC):
Engages students using Project Based Learning (PBL) to implement a solution to a real world problem. Robots, accessories, training material, and rulebook are given to the teams selected for participation, free of cost. Winners get exciting prizes and an opportunity to get internship at e-Yantra, IIT Bombay.

For Teachers:

Task Based Training (TBT):
Engages teachers through hands-on experiments in a step-by-step manner with exciting prizes and certificates.

For Students, Teachers and Colleges:

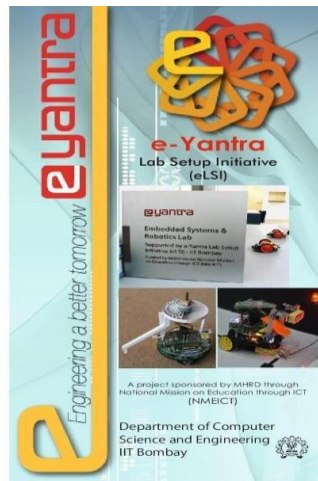
e-Yantra Ideas Competition (eYIC):
eYIC is the basis for e-Yantra to build a startup ecosystem around a college e-Yantra lab. We solicit ideas from student-teacher teams from eLSI colleges as the basis for innovative projects and for sustained use of Robotics labs set up through eLSI.

e-Yantra Team



Contact details:

Website: www.e-yantra.org
e-mail: support@e-yantra.org
Phone: 022-2576-4986; 022-2572-0184
Facebook: www.facebook.com/e-yantra



Two Day Workshop



e-Yantra Lab Setup Initiative (eLSI)

e-Yantra is a project hosted by IIT Bombay to spread education in Embedded systems and Robotics and is sponsored by Ministry of Human Resource Development (MHRD) through the National Mission on Education through ICT (NMEICT).

e-Yantra Lab Setup Initiative (eLSI) supports infrastructure creation at colleges by providing a platform for inducting teachers in Project Based Learning or "Learning by doing". We train teachers in theory and applications of Embedded systems and Robotics, in addition to providing guidance in setting up an Embedded Systems and Robotics lab at the college.

eLSI enables colleges to teach Robotics and Embedded Systems by:

- Training team of 4 teachers from a college in basics of Embedded Systems theory and Micro-controller programming through an on-site (at a local centre) 2-day workshop.
- Engaging teams through Task based Training (TBT) – where teachers are trained to implement experiments on a robot over a period of two/three months. Each college team is given a Robotic kit along with tutorials and accessories and is taken step-by-step through hands-on training by the e-Yantra team.

- Providing support and advice to set up a Robotics lab so that by the time the teachers are trained, the lab is ready at the college for the teachers to get their students involved through projects.

How does the college Benefit?

Benefits:

The main benefit of engaging with e-Yantra is to empower teachers and students and to create a culture of innovation and entrepreneurship in a college through e-Yantra initiatives. We not only help set up infrastructure and provide training but also through our considerable network identify resources in industry and alumni to help realize these goals in colleges hosting our labs.

More specific are the following outcomes:

- Better Final year projects in the area of Embedded Systems and Robotics.
- Access to a vast resource of open source projects and tutorials.
- Sustainability of the established lab through participation in the e-Yantra Ideas Competition (eYIC).
- An opportunity to setup an agriculture based IoT-testbed through the e-Yantra Farm Setup Initiative (eFSI).
- Better prospects for a college to gain visibility and attract local industries for internships and placements.

e-Yantra Ideas Competition



Online Lab Inauguration Ceremony



- Integration of hands-on experiments with regular theory sessions through teacher manuals shared via a resource portal.
- The established lab along with its sustainable ecosystem helps a college during accreditation.

How does a college participate?

It is in the interest of the college to invest in creating infrastructure – a Robotics lab where students have an opportunity to explore interdisciplinary skills and to prepare them for either industry or startups.

- A college needs to commit the following to participate in this initiative:

1. Funds to equip a basic Robotics lab (in addition to space and other infrastructure for a lab)
2. A team of 4 teachers to be trained by e-Yantra.

e-Yantra Symposium (eYS) at IIT Bombay



Fig 1: E-Yantra Brochure



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List of Students:

ALLA VIJAY KUMAR
AMARAPINNI HEMANTH SAI KUMAR
ANAKAPALLI NAGENDRA
ARJILLI KONDA BABU
BABBODI PAPINAIDU
BENARJEE VAMSI BHEEMUNI
BHEEMISETTY SAI PRAVEEN
BODDETI MUSILI NAIDU
BOKKA LAKSHMI NARAYANA MANIKANTA
CHIKKALA SAI SIRISHA
DADI RAVITEJA
DARLA MAHESH
DASARI SAI
DHANAKONDA SIVA
DODDI SRITEJA
DUNDURTHI ARUNA
EEGALA KUMAR
GANTA GOWTHAM KUMAR
GARIKI LAKSHMAN
JALLA VISWASWARAO
UPPILI JAYANTH
KAMPARA CHANDU
KANDREGULA GANESH
KANDREGULA SANJAY
KARANAM PAVANI
KAREDLA DILEEP KUMAR
KARNAM SYAM KUMAR
KARRI SWETHA
KASIREDDI CHANDRIKA
KOMMANAPALLI VENKATA CHAITANYA
KONATHALA MADHU
LANKI VIJAY KUMAR
LEKKALA TARUNKUMAR
LOKIREDDY SUNIL
MAJJI PREM KUMAR
MALLA SAI
MOTURI VENKATESH
MUMMINA LOWKYA
OBIREDDY LOKESH



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PAMALA LOHITH KUMAR
PENTAKOTA MURARI
PRAMUDULA PAVAN KUMAR
RANGALA SATYA JAGADEESH
SADI PADMANABAM
SALAPU SAI GANESH
SANKARLA SANTHOSH SANDEEP
SEETHINI MOUNIKA
SEERAM SAI
SESETTI NARENDRA
SETTI VENKATA PADMAVATHI
SHAIK JALALUDDIN
SIRASAPALLI SAI KUMAR
SURISSETTI SOMESH MAHA LAKSHMI NAIDU
SURISSETTY UDAYA KIRAN
VANAPALLI HARISANKAR DINESH
VEERESWARAPU VARAHA VENKATA SATYA NARENDRA
VEGI SYAM KUMAR
VINDULA CHARAN SAI TEJA
YEDDU ARAVIND KUMAR
CHUKKA MANIKANTA
KARRI KESAVA
GORLI GANESH
GANISSETTY HARSHAVARDHAN
KOYYA NAVEEN
VIYYAPU SIRISHA
SANDRANI BHANU SREE
MUTYALA GANGESWARA RAO
AITHA MOHANKAVYA
BODDAPU KUMAR
BUDDHA SAI
DEVADULA SRI SAI SAMPATH
DODDI ADI NAGA MAHA VENKATA SAI PRIYA
GALI ANITHA
JETTI PADMA PRIYA



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**TwoDayWorkshop on
IntroductiontoRobotics REPORT**

12–13 July,2019

**Organized by
Project Review Committee,Dadi Institute of Engineering & Technolog**

in Association with

e-Yantra,IIT Bombay

ProjectReviewCommitteeofDadiInstituteofEngineering&Technology(DIET) has successfully organized a Two Day Workshop on "Introduction to Robotics" through the e-Yantra Lab Setup Initiative (eLSI) in association with IIT, Bombay to achieve a sustainable and scalable solution for better engineering education in colleges and train better engineers for India.

e-Yantra

e- Yantra is a project supported by MHRD through the National Mission on EducationthroughICT(NMEICT)withProf.KaviArya,Professor,IITBombayasPrincipalInvestigator,tospreadEmbeddedsystemsandRobotics education targeting Colleges, Teachers and Students. e-YantranaturallylendsitselfmotivatingexcitingB.Tech.Projectswherestudents canlearnthroughhands-onexperimentswiththerobots.Theprojectis where practical engineering skills get honed



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e-Yantra Provides The Following Support:

1. Two-DayworkshoponBasics
2. Extended Hands-onTaskBasedTraining(TBT)
3. Roboticskits tocolleges thatsuccessfully participate inLSi
4. ConsultancyandsupportforsettingupaRoboticsLab
5. Continued support through various other initiatives such as, e-Yantra Resource Development Center[eYRDC] and e-Yantra Symposium[eYS]

WorkshopSchedule

WorkshopSchedule	
Day1:	
8:30AMto09:15AM	Registration+Tea
09:15AMto09:45AM	Inauguration--Lightingoflamp;Overviewofe-Yantra
09:45AMto11:00AM	IntroductiontoFireBirdVrobot
11:00AMto01:00PM	IntroductiontoAVRMicro-controllerandProgrammingenvironment
01:00PMto02:00PM	Lunch Break
Handson Session	
02:00PMto03:30PM	SimpleMotionControlusingI/Oports
03:30PMto03:45PM	Teabreak
03:45PMto05:15PM	Robotvelocitycontrolusingpulsewidthmodulation
Day2:	
HandsonSession	
09:30AMto10:45AM	IntroductiontoLCD interfacing
10:45AMto11:00AM	TeaBreak
11:00AMto01:00PM	AnalogsensorinterfacingusingAnalogtoDigitalconversion
	*Interfacingwithwhitelinesensors
	*InterfacingwithInfraredrangefindersensor
01:00PMto02:00PM	Lunch Break
02:00PMto03:30PM	Interruptprogramming
	*Closedlooppositioncontrolofrobotusingpositionencoders
03:30PMto03:45PM	Teabreak



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03:45PMto04:15PM	Robotprogrammingforwhiteline following FeedbackSessio n
04:15PMto05:00PM	Quizandfeedback
05:00PMto05.30PM	Concludingssession

Valedictory of Workshop

Valedictory of Workshop is grandly conducted in DIET. e-Yantra team distributed Robots worth Rs. 35000/ to all colleges who participated in the event. They also gave opportunity to DIET and other colleges for working as TBI and invited our staff and student participate in competitions held in IIT Mumbai. They are impressed by seeing the enthusiasm of learning in participants. The total event was covered by press and full page printed in Eenadu district edition.



Fig1:Participants receiving Robots



Fig 2: Active participation of facultymembers



Fig3: Valedictory function group photo



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1. Has the Workshop attained its objectives

- Yes
- No

2. Workshop was relevant to my needs

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

3. Instructions were clear and understandable

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

4. Content was well organised

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

5. Was the Duration of the training sufficient.

- Yes
- No

6. Resource persons were effective.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

7. Queries were encouraged

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree



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8. Any additional remarks

9. Overall how would you rate this event

- Excellent
- Very good
- Good
- Fair
- Poor



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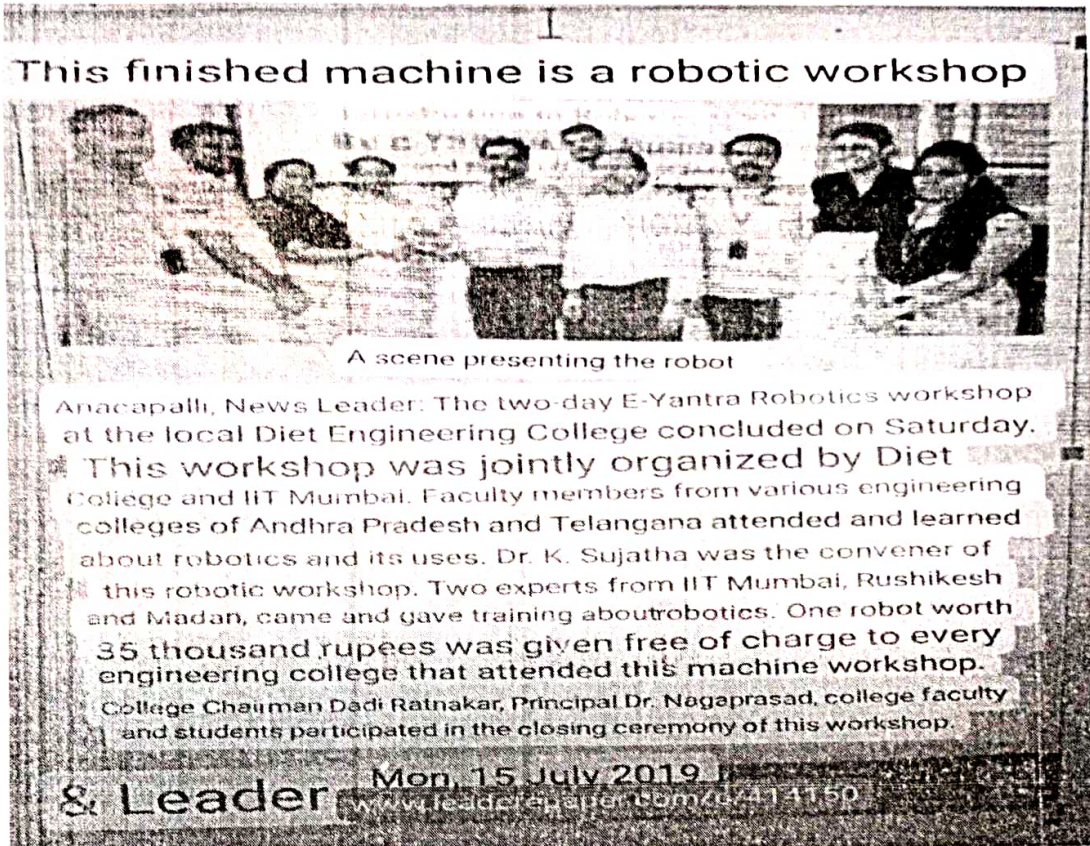


Fig 4: Press clippings

PRINCIPAL
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ANAKAPALLE - 531 002