

Centre for Internet of Things

Established in association with the industry ResPro Labs, Chennai during the academic year 2017-18 coordinated by the Department of ECE

Signed MoU with the industry in January 2018

ABOUT CENTRE FOR INTERNET OF THINGS:

The objective of establishing this "Centre for Internet of things" is to impart working knowledge in Internet of Things to all our students to train them at par with the requirement of the nation to become technocrats as well as entrepreneurs in IoT technology.

Internet of Things (IoT) involves network of "things", embedded with sensors that can be identified, addressed and named, seamlessly connecting to the internet. The number of internet connected devices worldwide is estimated to reach between 26 billion and 50 billion by 2020. As part of the Digital India initiative, Government of India aims at 'transforming India into digital empowered society and knowledge economy', and this is expected to provide the required impetus for development of the IoT industry ecosystem in the country. Department of Electronics and Information Technology, (DeiTY) has come out with an IoT Policy which focuses on implementing IoT by means of Demonstration Centres, Capacity Building & Incubation, R&D and Innovation and Human Resource Development. Further, the Indian Government's plan of developing 100 smart cities in the country could lead to a massive and quick expansion of IoT in the country.

Students are motivated to implement their innovative ideas into a prototype using embedded development kit and the data acquired from the sensors will be pushed to the cloud, the data processing will be carried out in the cloud using Data analytics and cloud computing. Our students have participated in various hackathons organized by the government and other organizations at national level. Periodically, renowned experts from industry and academia will be invited to present on emerging trends in IoT and necessary trainings will be arranged along with the industry partners to update our students on the technological developments.

Events Organized:

1. TWO DAYS HANDS-ON TRAINING ON INTERNET OF THINGS (IOT) FOR BEGINNERS (PHASE I)

Centre for Internet of Things (CIoT), RIT conducted "Two Days Hands-on Training On Internet of Things (IoT) for Beginners" on 24th & 25th November 2017 at Rajalakshmi Institute of Technology, Chennai. The training program exclusively arranged for first year Under Graduate Engineering students

to motivate the students to work on state of art technology, Internet of Things. Totally **Ninety Two** students have undergone the training program which includes the participants from other institutions also.



2. THREE DAYS FACULTY DEVELOPMENT PROGRAM ON INTERNET OF THINGS (IOT) FOR INDUSTRIAL APPLICATIONS

The "Centre for Internet of Things" of Rajalakshmi Institute of Technology has organized a "THREE DAYS FACULTY DEVELOPMENT PROGRAM ON INTERNET OF THINGS (IOT) FOR INDUSTRIAL APPLICATIONS" on 7th to 9th December 2017 in association with the industries ResPro Labs, Chennai and IoT Geeks, Chennai.

This Faculty development program focused on training the participants to use the development boards for the implementation of IoT based industrial automation applications. **43 participants** from various institutions and industries from Tamilnadu and Andhra Pradesh have participated in the program.

This event was conducted with 100% hands-on session, in such a way to make the participants to implement their own innovative idea into a prototype.





3. TWO DAYS HANDS-ON TRAINING ON INTERNET OF THINGS (IOT) FOR BEGINNERS (PHASE II)

The Centre for internet of Things, Rajalakshmi Institute of Technology has successfully conducted the Two days hands-on training on Internet of Things for Beginners on 24th and 25th January 2018. 51 students successfully completed the training.

Experts from ResPro Labs trained the students on interfacing different sensors with NODEMCU. The cloud platforms are introduced to students and students are trained to transfer the sensor data to the cloud.





4. **RIT RASPBERRY JAM CELEBRATION (WORKSHOPS AND PROJECT DEMONSTRATIONS)**

To celebrate the Raspberry Pi's sixth birthday, "**Raspberry Jams**" events are conducted all over the world. Raspberry Jams are community events for people to come together to learn about digital making with Raspberry Pi. Jam events come in all shapes and sizes: workshops for beginners, drop-in sessions to work on your own projects, show-and-tell, talks, and more. Jams are welcoming events to meet and learn from like-minded people in a friendly environment.

In this content, Rajalakshmi Institute of Technology (RIT) joining hands with Raspberry for the global mega-celebration of its sixth birthday. RIT Chennai celebrating this moment through "RIT Raspberry Jam" event on 2nd and 3rd March 2018. This event consists of a workshop, Guest Lectures and Project Demonstrations for the two days.

Faculties, Students and Industry people are shown great interest in participating in RIT Raspberry Jam. Totally **125 participants** were registered for different events for this Jam. Centre for Internet of Things (CIoT) established in RIT last year and through CIoT, many workshops and training programs are conducted for the students, faculties and industrialist from across the country. This is the first time CIoT-RIT is conducting a global event by joining hands with Raspberry community.

This event is conducted in association with our industrial partner ResPro Labs and IEEE Madras section.



5. Two days workshop on Android Application Development with hands-on training to develop simple apps using Android studio (Phase I)

Centre for Internet of Things (CIoT), RIT conducted “Two days workshop on Android Application Development with hands-on training to develop simple apps using Android studio on 24th and 25th August 2018 at Rajalakshmi Institute of Technology, Chennai. The training program arranged for Under Graduate Engineering students to motivate the students to work on state of art technology, Introduction to Android , Introduction To Mobile Apps **and** Developing proprietary apps Totally **Ninety** students have undergone the training program which includes the participants from all the disciplines. This event was conducted with 100% hands-on session.



6. Workshop on Android Application Development (Phase II)

Centre for Internet of Things (CIoT), RIT conducted a “**Workshop on Android Application Development**” on 5th and 6th September 2018 at Rajalakshmi Institute of Technology, Chennai. The training program arranged for Under Graduate Engineering students to motivate the students to work on state of art technology, Introduction to Android , Introduction To Mobile Apps **and** Developing proprietary apps Totally **Sixty** students have undergone the training program which includes the participants from all the disciplines. This event was conducted with 100% hands-on session.



7. One day workshop on “ Integration of Arduino and Proteus ISIS for various Applications ”

Centre for Internet of Things (CIoT), RIT conducted “One day workshop on Integration of Arduino and Proteus ISIS for various Applications” on 27th November 2019 at Rajalakshmi Institute of Technology, Chennai. The workshop was targeted for the faculty members of RIT on state of art technology and pathway to Internet of Things. Totally **Twenty-Five** faculty members from various departments have successfully participated the workshop. In this workshop a brief introduction to Arduino was given followed by Simulation of various Arduino based project using Proteus ISIS software. The workshop aims to impart sufficient knowledge to the faculty members to guide the students for mini projects and their final year projects and to produce some innovative prototypes. This event is conducted in association with IEEE student branch of RIT.



8. Two days workshop on “Basics of Arduino board and Proteus Design suite for Beginners”

Centre for Internet of Things (CIoT) conducted “Two days workshop on “Basics of Arduino board and Proteus Design suite for Beginners” on 28th & 29th February 2020 at Rajalakshmi Institute of Technology, Chennai. Prof.Dr.Shanker Rajendiran Nagalingam.,PhD, Founder of Chase Technologies, Chennai was the chief guest for the inaugural function. He given a wonderful guest lecture on entrepreneurship, patents and other carrier opportunities. The workshop was targeted for

the second-year students of CSE and ECE of RIT to enhance the skill over basic development boards like Arduino and proteus design suite to visualize the prototype working. Totally **Sixty-Seven students** from both departments have successfully attended the workshop. In this workshop a brief introduction to Arduino uno was given followed by Simulation of various Arduino based project using Proteus ISIS software. The workshop aims to impart sufficient knowledge to the student's community to create their own innovative projects and there by solve social problems. This event is conducted in association with Department of Electronics and communication Engineering and IEEE student branch of RIT.

