

# A.G. & S.G. Siddhartha Degree College of Arts & Science (Autonomous)

Vuyyuru, Krishna District, Andhra Pradesh



## DEPARTMENT OF PHYSICS

**One Day National Level Seminar on**  
**“HYPER SPACE OF OBJECTS (IoT) & MICRO CONTROLLERS”**  
**25-01-2018**

Sponsored by

Siddhartha Academy of General and Technical Education, Vijayawada

**Organized by**

**DEPARTMENT OF PHYSICS AND DEPARTMENT OF COMPUTERS**

**SCIENCE in Association with Internal Quality and Assurance Cell (IQAC)**

<b>Inauguration</b>		
10.00 AM	Inviting Guests on the Dias and Prayer song	
10.10 AM	Lighting the Lamp by Dr. Santanu Chatterjee Scientist, DRDO, Ministry of Defence , Govt of India, Hyderabad.	
10.15 AM	President's opening remarks by Sri. K. Satyanarayana, Principal	
10.25 AM	Address by CH.V.Anil Dai, Head Department of Physics	
10.35 AM	Address by Sri. T. Sri Hari Rao , Convener	
10.45 AM	Address by Dr. Santanu Chatterjee , Scientist, DRDO	
10.55 AM	President's Closing Remarks by Sri. K. Satyanarayana, Principal	
Session-1	11.00 AM to 12.00 PM	Dr. Santanu Chatterjee Scientist, DRDO
Session-2	12.00 PM to 1.00 PM	Dr. Vinod Kumar Mahor, ER&CS/ICT Directorate Imarat, DRDO.
<b>LUNCH BREAK (01.00 PM TO 02.00 PM)</b>		
Session-3	02.00 PM to 03.30 PM	Dr. A.V. Krishna Prasad, Prof. in CSE Dept., MVSR Engineering College, Hyderabad
Session-4	03.30 PM to 04.30 PM	a)Dr. B. Bhanu Prasad, Prof. in Dept. of Sciences & Humanities, MVSR Engineering College, Hyderabad. b) Dr. K.Suresh, prof. in physics, VSR & NVR College, Tenali
<b>Valedictory</b>	4.35 PM	Vote of Thanks by Sri. P.V. Ramana
4.45 PM	<b>National Anthem</b>	

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Vuyyuru, Krishna District, Andhra Pradesh

## One Day National Level Seminar on

“ HYPER SPACE OF OBJECTS (IoT) & MICRO CONTROLLERS ”

### SEMINAR BROCHURE

#### ABOUT THE INSTITUTION:

A.G & S.G. Siddhartha Degree College is located at Vuyyuru, 25 km from Vijayawada and is spread over 14 acres of lush green land scape spotted with orchards and groves. At A.G & S.G. Siddhartha College, the focus is on well-balanced approach to industry-oriented academics where the most sophisticated infrastructure is supported by a dedicated team of well qualified and experienced faculty. There is good number of pressuring Ph.Ds among the staff, all working with dedication and rendering service to secure creditable results. The management too is actively involved in every aspect of the student's progress and career.

The CSS and Placement department is full-fledged headed by a true Professional and full time faculty imparting soft skills. The College is aiming to achieve 100% placement this academic year. It has tied up with several public sector and Multinational Companies.

All laboratories are equipped with state of the art facilities. The library has over 20126 books spanning 3000 titles, over 100 journals and magazines with full-fledged digital library. Lot of research is going on in all the departments in the college.

The college was accredited at “A” Grade by NAAC.

#### ABOUT THE DEPARTMENT:

The Department of Physics was started in the year 1975. A.G & S.G. Siddhartha College offers a B.Sc.General and B.Sc computers. The Department has well qualified and dedicated faculty, all was trying to sharpen their skills in imparting quality education in Physics. This commitment of dept resulted in development of the employability skills of the students to take up Challenging position in Corporate bodies.

#### ABOUT THE SEMINAR

The faculty of Physics in pursuit of academic excellence is organizing one day National Level Seminar on “HYPER SPACE OF OBJECTS (IoT) and MICROCONTROLLERS”

World-Wide network of interconnected heterogeneous objects uniquely addressable, based on standard communication protocols. The Microcontrollers and other programmable digital devices have become “Universal Components”

This seminar acquaints various types of devices and their principle characteristics. It also enable to choose appropriate software and hardware tools for their project.

#### Objectives of this SEMINAR:

- Introduction to “HYPER SPACE OF OBJECTS (IoT) and MICROCONTROLLERS”
- Different techniques
- Exchange of ideas and concepts
- Advantages of Microcontrollers

#### HOW TO REACH VUYYURU?

Vuyyuru is well connected by road, rail and Air. It is well connected to the rest of the country by National Highways. Vijayawada Railway Junction is the largest railway junction on the south central railway network. It is also well connected by Air. The domestic Airport is at GANNAVARAM, about 25km from the Workshop venue, connects Vijayawada to Hyderabad, Bangalore, Chennai, and New Delhi. Workshop venue is located about 25km from Vijayawada Railway Station and Vijayawada A.P.S.R.T.C. Bus Stand. RTC Buses are available from Railway Station to reach the Workshop Venue.

#### Venue:

Seminar Hall  
A.G&S.G. Siddhartha Degree College of Arts & Science (Autonomous) Vuyyuru - 521165, Andhra Pradesh, India.

#### ADVISORY COMMITTEE:

- 1) U. Ram Prasad
- 2) P.Venkata Ramana
- 3) CH.V.Anil Dai, HOD

<p align="center"><b>REGISTRATION FORM</b></p> <p>1. Name: _____</p> <p>2. Designation: _____</p> <p>3. Qualification: _____</p> <p>4. Institution: _____</p> <p>5. Professional Experience: _____</p> <p>6. Address for Correspondence with email &amp; Phone no: _____</p> <p>_____</p> <p align="center">Declaration</p> <p>The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the programme.</p> <p align="right">Signature of the Applicant</p> <p>Place: _____ Date: _____</p> <p>Registration Fee: Rs. 200/-</p> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin-top: 10px;"> <p><b>Address for Correspondence:</b>  <b>Ch. V.ANIL DAI</b>  <b>Organizing Secretary</b>  <b>H.O.D. of Physics,</b>  <b>A.G &amp; S.G. Siddhartha Degree</b>  <b>College (Autonomous), Vuyyuru</b>  <b>Mobile: 8639250197</b></p> </div>	<p><u>Organizing Committee:</u></p> <p><b>CHIEF PATRON</b>  Sri N.Venkateswarlu  President, Siddhartha Academy of General &amp; Technical Education (SAGTE), Vijayawada-10</p> <p><b>PATRONS</b>  Sri P.Lakshmana Rao  Secretary, SAGTE</p> <p>Sri S. Venkateswara Rao  Treasurer, SAGTE</p> <p>Sri T. Sri Hari Rao  Convenor, A.G &amp; S.G. Siddhartha Degree College</p> <p><b>CHAIRMAN</b>  Sri. K. Satyanarayana  Principal, A.G &amp; S.G. Siddhartha Degree College</p> <p><b>ORGANIZING SECRETARY</b>  Organizing Secretary  H.O.D. of Physics,  Ch. V.ANIL DAI</p> <p><u>Coordinator:</u>  P.V.Ramana</p> <p><u>Organizing Committee Members:</u>  Sri.U.Ramprasad  Sri.J.Hareesh Chandra  Sri.M.Sateesh</p>	<p>National Level Seminar on "HYPER SPACE OF OBJECTS (IoT) and MICROCONTROLLERS"  <b>On 25<sup>th</sup> January, 2018</b>  Sponsored by UGC</p>  <p><b>Organized by</b>  <b>Department of Physics</b>  <b>A.G. &amp; S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS &amp; SCIENCE (AUTONOMOUS)</b>  <b>VUYYURU-521165, KRISHNA (Dt), A.P.</b>  (Accredited at "A" Grade by NAAC, Bangalore)</p>
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## Brief Report

The Department of Physics and computer science organized a one day National Level seminar on "HYPER SPACE OF OBJECTS(IoT) & MICRO CONTROLLERS" on 25 th January 2018. The workshop was greatly useful in throwing light on those concepts which were difficult to learn in the regular classroom. The expertise of the Resource Persons helped the students to understand the various concepts in the HYPER SPACE OF OBJECTS(IoT) & MICRO CONTROLLERS .

The Workshop commenced with the Lighting of Lamp by Dr. Santanu Chatterjee , Scientist, DRDO, Ministry of Defence , Govt of India, Hyderabad , Sri. K. Satyanarayana (Principal), CH.V.Anil dai , Head Dept of Physics, A.G & S.G. Siddhartha Degree College, Sri.T.Srihari Rao, convenor . The program was started with Vandemataram.

## Inaugural session Photos



Work Shop Inaugurated by Dr. Santanu Chatterjee and Sri T.Srihari Rao, convenor

## President Remarks by Sri. K.Satyanarayana





**About the Seminar by T.Srihari Rao**



**About the Seminar by Ch.V.Anil Dai**



**Souvenir Book has been inaugurated by Chief guests of seminar**



Sri K. Satyanarayana, in his Presidential remarks, said that the program was a great opportunity for the students to learn a new concept in HYPER SPACE OF OBJECTS(IoT) & MICRO CONTROLLERS.

He said he would be looking forward to hearing the feedback of the students in the evening.

Ch.V.Anil Dai explains the importance of HYPER SPACE OF OBJECTS (IoT) & MICRO CONTROLLERS in modern era.

Sri.T.Srihari Rao said that A.G. & S.G.S. College Committee was always ready to promote such learning initiatives and felt that the seminar would give a chance to learn the latest developments in the subject of HYPER SPACE OF OBJECTS(IoT) & MICRO CONTROLLERS. The Inaugural Session concluded with a Vote of Thanks by Sri U. Ram Prasad.

## The flow of the workshop

The Lecture seminar contained altogether 5 (Five) invited talks distributed among five resource persons in various sessions.

### **Aim of the Seminar:**

Research regarding the Hyperspace is a term that describes the total number of individual locations and all of their interconnections in hypertext environment.

World-wide network of interconnected heterogeneous objects (sensors, actuators, smart devices, smart objects, RFID, embedded computers, etc) uniquely addressable, based on standard communication protocols. At this point, it must be seen as a vision where "things", especially everyday objects, such as home appliances furniture, clothes, vehicles, roads and smart materials, which are readable, recognizable, locatable, addressable and/or controllable via Internet. This will provide the basis for many new applications, such as energy monitoring, transport safety systems or building security and control various appliances.

The Microcontrollers and other programmable digital devices have become “Universal Components”. They are used in all things from cell phone to car, TV to Oven etc. anything that has a human interface that uses microcontrollers. Anyone working in a traditionally analog specialty does not have a working acquaintance with microcontrollers they may find their job and career options limited. This seminar provides an Introduction to world of microcontrollers and embedded systems development. The goal of this seminar is to prepare the attendee to start studying and learning about the world of microcontrollers applications without constantly stumbling over basic concept and vocabulary. This seminar acquaints the attendee with the various types of devices and their principal characteristics. It also enables the attendee to choose appropriate software and hardware tools for their project.

This seminar is introductory in nature and no previous experience with microcontrollers or programming is needed. The main objective of the seminar is to bring scientists, engineers, technologists and researchers from various corners of India at one forum and share their views, exchange of ideas, concepts and techniques in terms of presentations or deliberations. The deliberations are categorized as plenary lectures, Invited talks, from reputed resource persons on major topics and contributory oral talks for the participants. For the benefit of both faculty and student community .

## **Main Objectives of the Seminar:**

- Introduction to “HYPER SPACE OF OBJECTS (IoT) and MICROCONTROLLERS”
- Exchange of ideas and concepts .
- Advantages of Microcontrollers .

**First session speaker - Dr. Santanu Chatterjee, Scientist, DRDO, Ministry of Defence , Govt of India, Hyderabad.**

In the first session of the speaker, Dr. Santanu Chatterjee delivered a talk –History and uses of HYPER SPACE OF OBJECTS (IoT) and MICROCONTROLLERS.

He explained various new techniques in Microcontrollers with the participants. There was also good participation from the student’s side, making the session very interactive towards the ending of the session.



**First session speaker, Dr. Santanu Chatterjee**

The goal behind the Internet of things is to have devices that self report in real-time, improving efficiency and bringing important information to the surface more quickly than a system depending on human intervention.

The Internet of Things (IOT) is a name for the aggregate collection of network-enabled devices, excluding traditional computers like laptops and servers.

Types of network connections can include Wi-Fi connections, Bluetooth connections, and near-field communication (NFC).

IOT includes devices such as "smart" appliances, home security systems, computer peripherals, wearable technology, routers, and smart speaker devices.

The Internet of Things is transforming a wide range of fields, from medicine to urban planning to consumer data collection



**Second session speaker - Dr. Vinod Kumar Mahor, ER&CS/ICT Directorate Imarat DRDO, Ministry of Defence, Govt of India, Hyderabad.**

In the second session of the speaker, Dr. Vinod Kumar Mahor, ER&CS/ICT Directorate Imarat DRDO, Ministry of Defence, Govt of India, Hyderabad delivered a talk -Uses of microcontrollers. There was also good participation from the student's side, making the session very interactive towards the ending of the session.

The Internet of Things (IOT) describes the network of physical objects—“things”that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems overtheinternet.



**Second session speaker : Dr. Vinod Kumar Mahor**

**Third session Speaker - Dr. A.V. Krishna Prasad, Prof. in CSE Dept., MVSR Engineering College, Hyderabad**



**Third session speaker - Dr. A.V. Krishna Prasad**

In the third session of the speaker, Dr. A.V. Krishna Prasad, Prof. in CSE Dept., MVSR Engineering College, Hyderabad delivered a talk on the Internet of

Things (IOT) describes the network of physical objects “things” that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet. There was also good participation from the student’s side, making the session very interactive towards the ending of the session .

**Fourth session Speaker - Dr. B. Bhanu Prasad, Prof. in Dept. of Sciences & Humanities, MVSR Engineering College, Hyderabad.**



**Fourth session speaker - Dr. B. Bhanu Prasad**

In the fourth session of the speaker, Dr. B. Bhanu Prasad, Prof. in Dept. of Sciences & Humanities, MVSR Engineering College, Hyderabad Explains the Internet of Things (IOT) describes the network of physical objects“things”that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet .

In the fourth session of the speaker, Dr. K.Suresh, prof. in physics, VSR & NVR College,Tenali explains about the usage of Microcontrollers in automobile enines, medical devices,remote controls, office machines.



#### **Fourth session speaker - Dr. K.Suresh**

A discussion cum feedback session was arranged on the one day of the seminar. The feedback was highly positive indicating further that the four sessions were informative as well as interactive. The resource persons addressed the participants and motivated them to undertake research in the field of Microcontrollers.

The workshop ended with a valedictory function as a chief guest Dr. Santanu Chatterjee. The valedictory session concluded with a vote of thanks by Sri. P.V.Ramana and it was concluded with the National Anthem.

#### **Certificates Distribution session:**





**Vote of Thanks by Sri. P.V.Ramana**



**Honoring the chief guests**





**Group photo of chief guests and staff present in seminar**



**Group photo of chief guests, staff and students present in seminar**



National Anthem by Staff and students :-



Student and staff activities during the seminar :-



We thank the management of Siddhartha Academy of General and Technical Education for the financial support for the workshop. We also thank the teaching and non-teaching staff of our college, print & electronic media. The student volunteers from the department of Physics and computers made this event successful and I thank them for their co-operation and hard work .

## PAPER CLIPPINGS

### ఏజీ అండ్ ఎస్జీఎస్లో జాతీయ సెమినార్ నేడు

ఉయ్యూరు, జనవరి 24: హైఫర్ స్పేస్ ఆఫ్ ఆబ్జెక్ట్స్ అనే అంశంపై ఏజీ అండ్ ఎస్జీఎస్ కళాశాలలో గురువారం జాతీయ సెమినార్ నిర్వహించనున్నట్లు కళాశాల ప్రిన్సిపాల్ కె.నత్యనారాయణ తెలిపారు. వివిధ రాష్ట్రాల శాస్త్రవేత్తలు, ఆచార్యులు హాజరవుతారన్నారు.