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Visakhapatnam-531113



Certificate Course

วท

#### Modern Antenna Technologies for Wireless Communication Systems

From 29th Oct 2018 to 2nd Nov 2018



#### **ORGANIZED BY**

DEPT. OF ELECTRONICS AND COMMUNICATION ENGINEERING AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM (V), VISAKHAPATNAM-531113

#### **AVANTHI EDUCATIONAL SOCIETY**

Avanthi Educational Society under the Leadership of Sri M.Srinivasa Rao garu as chairman was started in the Year 1991. Within a short span of its establishment, the group has made a remarkable stride in the field of education offering various courses at Under Graduate, Post Graduate, Pharmacy & Engineering levels. This milestone is achieved as the institution carved itself to impart quality and career oriented education, countering the challenges of the modern world through planning, dedication, determination, prompt execution and with the innovative ideas of our advisory board.

Today, Avanthi Educational Society is proud to have a strength of over 16000 students with 15 institutions under its ambit. It is the path of glory towards the success during the last 19 years. The institution has been adjudged many times as the second best educational institutions in the twin cities and 16th best in all over India through the impartial survey made by the renowned magazine "India Today".

#### **AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

AIET started in the year 1999 and offers various courses at Engineering and PG level. The college is providing with rooms, computer centre, laboratories and seminar hall with audio-visual equipments. Industry Institute interaction is conducted regularly to emphasize on the latest trends in the present market.



It is very near to Narsipatnam. Frequent bus facilities are available both from and to Visakhapatnam and Narsipatnam. Very safe and secure hostel facility is available for Girl students. These are the additional facilities besides excellent academic atmosphere in the college campus.

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The ECE Department was established in the year 1999 with an intake of 60 students and this was increased to 120 students in the 2007 and increased to 180 students in the 2012. The department has an eminent faculty and well supported infrastructure and laboratories. The faculty keeps abreast with the latest advances in technology and ensures that hardware equipment and related software are upgraded to ensure its students are able to keep pace with current trends in technology and the industry.

The department also offers a Post – Graduate courses in DECS and VLSI Design. The students are encouraged to participate in workshops, industrial internship, industrial visits and seminars; along with the projects assigned during the course, these activities enable them to broaden their outlook and build in professionalism that makes their transition from college to industry smoother after graduation.

#### **ABOUT COURSE**

A software-defined radio system that has all the conventional communication components mixer, filters, amplifiers, modulators/demodulators, and detectors, these components can be implemented by software-based systems.

Antenna research is the most important part of future wireless communication trends and with the advancement of Next Generation systems, innovative antenna technologies are being incorporated.

#### **TOPICS TO BE COVERED**

**Day-1:** Antenna Fundamentals

➤ **Day-2:** Aperture Antennas

**Day-3:** Broadband Antennas

**Day-4:** Microstrip Antennas.

**Day-5:** Antenna Arrays

For Registration please contact Mr.K.Dhilli, Assistant Professor, ECE

#### **CHIEF PATRON**

Smt.M.Gnaneswari President, Avanthi Educational Society

#### **PATRON**

Dr. C P V N J Mohan Rao Principal, Avanthi Institute Of Engineering And Technology

#### **CHAIRMAN**

Sri. E. Govinda Head of the Department Electronics and Communication Engineering



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# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CIRCULAR

Date: 27/10/2018.

This is informed to all the II&III B.Tech ECE students that our department is planning to conduct one week course on "Modern Antenna Technologies for Wireless Communication Systems" scheduled from 29-10-2018 to 02-11-2018. It is directed to all the students of II&III ECE to utilize this opportunity to enhance your technical skills. For more details about registration process and participatio contact Course Coordinator Mr K. Dhilli, Assistant Professor, ECE.

#### Resource Person Details:

- Dr. M.Rajan Babu,
   Professor,
   Department of ECE,
   Lendi institute of engineering and technology,
   Vizianagaram.
- Dr.J. Sudhakar,
   Professor,
   Department of ECE,
   Vignan's Institute of Engineering for Women,
   Visakhapatnam.

E. Govinda

Head of the Department,

ECE.

Copy to: Principal, AIET

HEAD OF THE DEPARTMENT DEPARTMENT OF ECE Avanthi Institute of Engg.&Tech.

Makavarapalem, Visakhapatnam Dist-53: 113.



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# Modern Antenna Technologies for Wireless Communication Systems

From 29-10-2018 to 02-11-2018

#### SYLLABUS

Day-1: Antenna Fundamentals

Day-2: Aperture Antennas

Day-3: Broadband Antennas

Day-4: Microstrip Antennas.

Day-5: Antenna Arrays

E.Govinda CHAIRMAN &

Head of the Department Electronics and communication Enj incering K.Dhilli Asst. Professor

Coordinat r

K. philli

HEAD OF THE DEPARTMENT DEPARTMENT OF ECE Avanthi Institute of Engg. & Tech. Makararapalam. Visashapatnam Disc-52 113.



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# Modern Antenna Technologies for Wireless Communication Systems

# From 29th Oct 2018 to 2nd Nov 2018

#### Schedule

## Day-1 (29/10/2018)

Day-1 (29/10/2016)	Dudiction Mechanist
09:00 to 10:00	Introduction to Antenna Parameters Radiation Mechanism.  Antenna Parameters: polarization, co polarization and cross polarization
10:00 to 12:00	Antenna Para meters: polarization, co polarization de la level, bean width, input impedance, bandwidth, efficiency
12:00 to 01:00	Lunch Break  Antenna temperature-radiation pattern-Gain-Directivity at d Impedance
01:00 to 04:00	Antenna temperature-radiation pattern-Gam-Briedings measurements.

## Day-2 (30/10/2018)

09:00 to 10:00	Huygens prir ciple-radiation from rectangular and circular apertures,
	design consiceration.
10:00 to 12:00	Babinet's principle, Radiation from sectoral and pyramidal horns.
12:00 to 01:00	Lunch Break
01:00 to 04:00	Design concepts.

# Day-3(31/10/2018)

09:00 to 10:00	Broadband concept	
10:00 to 12:00	Log-periodic antennas	
12:00 to 01:00	Lunch Break	
01:00 to 04:00	Frequency independent antennas.	

#### Day-4(01/11/2018)

	To an independent entennes
09:00 to 10:00	Frequency independent antennas.
10:00 to 12:00	Feeding methods, methods of analysis
12:00 to 01:00	Lunch Break
01:00 to 04:00	Design of rectangular and circular patch antennas.

## Day-5(02/11/2018)

09:00 to 10:00	Analysis of uniformly spaced arrays with uniform and non-uniform
	excitation amplitudes
10:00 to 12:00	Extension to planar arrays.
12:00 to 01:00	Lunch Break
01:00 to 04:00	Applications of Extension to planar arrays.

HEAD OF THE DEPARTMENT
DEPARTMENT OF ECE
Avanthi Institute of Engg.&Tech.
Makavarapalem, Visakhapatnam Dist-531 113.



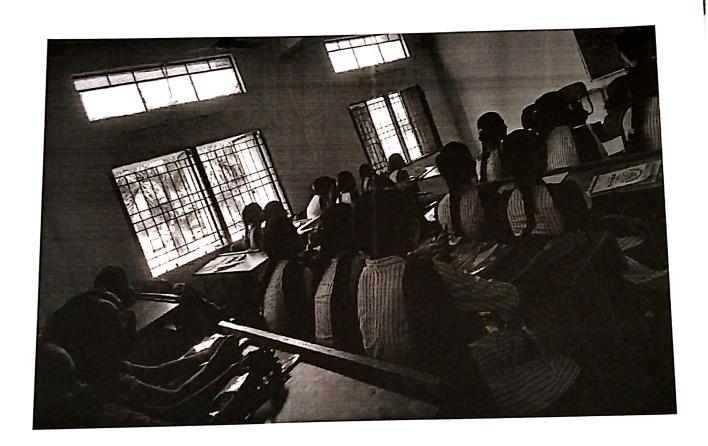
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A Course on

Modern Antenna Technologies for Wireless Communication Systems

Dated :- 29/10/2018



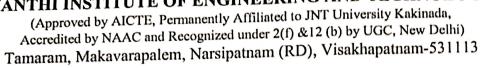
K. Dhillian Coordinator

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HEAD OF THE DEPARTMENT DEPARTMENT OF ECE

Avanthi Institute of Engg.&Tech.

Makavarapalem, Visakhapatnam Dist-531 113,



# Modern Antenna Technologies for Wireless Communication Systems From 29<sup>th</sup> Oct 2018 to 2<sup>nd</sup> Nov 2018 II &III BTECH ECE STUDENTS ATTENDANCE LIST

S.NO	ROLL NO	STUDENT NAME	29/10	30/10	31/10	1/11	2/11
1	17811A0401	ADARI UMA MAHESH		/			/
2	17811A0402	AKKENA SOMASEKHAR				<u> </u>	/
3	17811A0403	ALLAM LOKESH KUMAR					
4	17811A0405	AMIREDDI SIVAJI	V	<b></b>	$\checkmark$	~	
5	17811A0406	ANGINA VAMSI		$\checkmark$			
6	17811A0408	BALIREDDI PREM KUMAR		<b>✓</b>		/	/
7	17811A0409	BOBBILI ANUVARA	,~	~	/	<b>/</b>	/
8	17811A0410	BODDU SWAMI NAIDU		<b>/</b>		~	
9	17811A0411	BOMMALI REVATHI	V	1		<b>/</b>	/
10	17811A0412	CHINTA SANTOSH	/		<b>/</b>		/
11	17811A0413	DODDI RAMA KRISHNA	<b>√</b>	<b>/</b>	/	<b></b>	<b>/</b>
12	17811A0421	GOPASANA PRUDHVI	1	<b>/</b>		· /	/
13	17811A0422	GORLE JITENDRA		/		<b>V</b>	/
14	17811A0423	INDALA POOJITHA	<b>✓</b>	/		/	

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15	17811A0424	JANAPAREDDY TIRUMALA	~	/	/	/	_	
16	17811A0426	KOLLATI NAVYA		/	/	/	/	
17	17811A0427	KONATHALA HARISH BABU		/	/	/	/	
18	17811A0428	KONDURU SRINUVASULU	$\sqrt{}$	<b>/</b>	_	~	/	
19	17811A0430	KUDELI DIVYA			<b>\( \)</b>	/	/	
20	17811A0431	LOMBORI KRUPA RANI	<u></u>	/	~	~	/	
21	17811A0432	MALLA RUPA JAGADEESHA	<b>✓</b>	<u> </u>	<b>\( \)</b>	~	~	
22	17811A0433	MANGALAGIRI ANJANI SAI	/	/		/	<u> </u>	-
23	17811A0434	MEDAPUREDDI GAYATHRI		/		/	<u> </u>	
24	17811A0435	NADELLA AJAY KUMAR	<b>/</b>	/	/	/	_/	
25	17811A0436	PALAKA SASIPRIYA				<b>/</b>	· 🗸	
26	17811A0437	PALLA ARUNA JYOTHI			/	<b>V</b>		
27	17811A0438	PENTAKOTA SRAVANI	$\sqrt{}$	/	/		· /	
28	17811A0441	REDDY ANAND KUMAR	1	/	<b>✓</b>		- ~	
29	17811A0444	RUTHALA SRI LAKSHMI	$\checkmark$	/	1	\ \ \		/
30	16811A0405	BANTUPALLI BHASKAR RAO	/	/				/
31	16811A0406	BATHI SAI PRASANNA	/			/ ,	/ /	
32	16811A0407	BATTALA DILEEP KUMAR	<b>/</b>	/		\ \		
33	16811A0408	BATTULA USHA						

		34	16811A041	0 BOBBILI VAMSI					$\subseteq$
	3	35	16811A041	BODDEDA SAIRAM	<i></i>		<b>✓</b>	V V	_
	3	6	16811A0412	BOLEM VENKATA RAVI TEJA	/	$\checkmark$	✓	~ ~	-
	3	7	16811A0413	BOMMALI LEELAMOHAN			/		
	38	3	16811A0414	BURRI MANASA		/			=
	39	)	16811A0422	GARAGA YUGA SRI		/	/		
	40		16811A0423	HITHESHI SANJAY HAZARNIS	/	/	/		
	41		16811A0424	KAKI LALITHA				/ /	
	42		16811A0425	KOLLI JAYASRI					
	43		16811A0426	KONCHA ARJUNAMMA	<b></b>	<b>/</b>	V		<b>✓</b>
	44		16811A0427	KOSANA ASWINI					
	45	1	6811A0428	KOTA CHITTIBABU	<b>/</b>			~	
	46	1	6811A0429	KOYILADA V V PARASURAM	<b>\( \)</b>	<b>\( \)</b>	/		
	47	1	6811A0430	KUNDRAPU SUSEELA	<b>/</b>	V	/		
	48	16	5811A0431	KUPPILI CHANDAN MEHER	<b>\( \)</b>	V	<b>/</b>		
•	49	16	5811A0432	KURACHA MADHU TRINADH					
	50	16	811A0433	LALAM REVATHI					
5	51	16	811A0434	MAKIREDDI RAMADEVI	<b>/</b>	<b>V</b>			V
5	52	16	811A0435	MAKIREDDI VENKATA SIREESHA	<b>/</b>	/			
5	3	168	811A0436	MALLA PUSPARCHANA	<b>\</b>		· /		

54	16811A0437	MATA SAI LAKSHMI	/	/	/	/	/
55	16811A0438	MATURU MANIKANTHA	/	1	/	/	/
56	16811A0439	MOURYA SANDEEP	/	1	~	1	_
57	16811A0440	MUKTA VISHNU		/	/	/	/
58	16811A0442	MUNJETI UMA SRI	/	/	1	/	/
59	16811A0444	NANDIPALLI SRI NAVYA	/	/	/	/	/
60	16811A0445	NEERUKATTU MAHESH	/	<b>✓</b>	/	1	/
61	16811A0446	PALLA SRINIVAS		/	/		/
62	16811A0447	PEDIREDLA SAILAKSHMI	/	/	1	/	

K. Ohilli Coordinator

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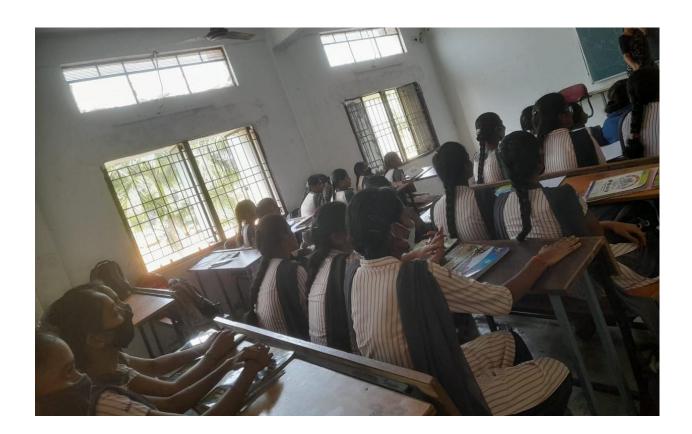
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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A Course on

#### INTRODUCTION TO ARTIFICIAL INTELLIGENCE

Dated :- 16/07/2018



Coordinator



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Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam-531113

## Department of Electronics and Communication Engineering

Dt: 06/11/2018.

#### BRIEF REPORT

Avanthi Institute of Engineering and Technology had organized a certificate course on "Modern Antenna Technologies For Wireless Communication Systems" From 29<sup>th</sup> Oct 2018 to 2<sup>nd</sup> Nov 2018 in the Department of Electronics and Communication Engineering.

We had Dr. N. Rajan Babu, Professor, Department of ECE, Lendi institute of engineering and technology, Vizianagaram explained about modern antenna technologies for wireless communication system. He provides the fundamentals in the theory and practice of antenna design and the antenna deployment in the modern wireless telecommunication systems.

**Dr.J.Sudhakar,Professor,Department of ECE,Vignan's Institute of Engineering for Women,Visakhapatnam**,introducedbasic antenna measurement
techniques and Classical radiating elements are studied: dipoles/monopoles, loops,
apertures, horns, reflectors, micro strip and slot elements, etc. Matching techniques
are presented.

Coordinator

Head of the Department'

HEAD OF THE DEPARTMENT DEPARTMENT OF ECE Avanthi Institute of Engg.&Tech. Makavarapalem, Visakhapatnam Dist-53\*\* 113.



# AVANTHI

# INSTITUTE OF ENGINEERING AND TECHNOLOGY

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Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam-53111

# **Certificate of Participation**

This is to certify that Mr./Ms	of	has
Participated in the Certificate Course entitled on Mode	ern Antenna Technologies for Wireless Comr	munication
Systems conducted from 29-10-2018 to 02-11-2018 wa	as organized by the Department of ELECTI	RONICS AND
COMMUNICATION ENGINEERING at Avanthi Institute of E	Engineering and Technology.	

Coordinator HOD Principal