



SASURIE COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi. Affiliated to Anna University, Chennai

Near NH544, Coimbatore Bypass, Near Vijayamangalam Tollgate, Tirupur 638056

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION - 1

CURRICULAR ASPECTS

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL

SASURIE COLLEGE OF ENGINEERING



1.2 Academic Flexibility(30)

1.2.1 Number of Value Added/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

AND

1.2.2 Percentage of students enrolled in Value Added/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

VAC Title:	5G and Beyond: Next-Generation Wireless Technologies				
Resource Person:	Mr. Angelos Sapetsas, Trainer, Scientronics, Coimbatore-641004		Sree Venkatesan, Manager, Scientronics, Coimbatore-641004		
Date of conduct from:	24.06.2019	To:	28.06.2019	Duration:	30Hours
Organized Department:	ELECTRONICS AND COMMUNICATION ENGINEERING				
Participant Year:	2/3/4	Semester:	ODD	No. of Students Registered:	67
Venue:	Lecture hall of II & III year ECE				

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

Ref: SCE / ECE/Students / VAC / 2019 – 2020 / ODD

17.06.2019

CIRCULAR

In order to bridge the curricular gap between the Academic Syllabus and Industry requirements, Department of Electronics and Communication Engineering and IQAC of our Institution in association with Scientronics, is organizing a Value Added Course (VAC) for the students of II, III and IV year of ECE on the title “5G and Beyond: Next-Generation Wireless Technologies” from 24.06.2019 to 28.06.2019. At the end of the VAC, course completion certificates will be issued to the eligible participants as per the following norms.

- Students, who are securing more than 70% on total score in the VAC test and secured more than 75% in VAC attendance is eligible to receive the course completion certificate for the VAC attended.

Resource Person Details	Mr. Angelos Sapetsas, Trainer, Scientronics, Coimbatore-641004	Sree Venkatesan, Manager, Scientronics, Coimbatore-641004
Venue	Lecture hall of II & III year ECE	

HoD/ECE

PRINCIPAL

Copy to:

1. Chairman & Secretary for information
2. Principal office
3. IQAC Co-Ordinator
4. Class In charges - II, III & IV-Year ECE
5. II, III & IV-Year ECE Students
6. ECE Notice Board
7. Department File

Dr. M. VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 055, Tirupur (Dt).

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

Ref: SCE / ECE/Students / VAC / 2019 - 2020 / ODD

17.06.2019

SYLLABUS - VALUE ADDED COURSE
“5G and Beyond: Next-Generation Wireless Technologies”

From 24.06.2019 to 28.06.2019 (5 days)


Duration : 30 Hours



Academic Year : 2019 -2020 / ODD

S.No.	Topics Covered	Duration (In Hours)	Date
1	Introduction to 5G Technology	3	24.06.2019
2	5G Architecture and Components	3	24.06.2019
3	5G Spectrum and Frequency Bands	3	25.06.2019
4	Internet of Things (IoT) and 5G	3	25.06.2019
5	Edge Computing and 5G	3	26.06.2019
6	Network Slicing	3	26.06.2019
7	Security and Privacy in 5G	3	27.06.2019
8	Beyond 5G Technologies	3	27.06.2019
9	AI and Machine Learning in 5G Networks	3	28.06.2019
10	Global Deployment and Regulatory Considerations	3	28.06.2019
Total Hours		30	-

After successful completion of 30 Hours VAC, the assessment test for the VAC titled “5G and Beyond: Next-Generation Wireless Technologies” will be conducted on 28.06.2019.


 VAC Coordinator


 HoD/ECE


Dr.M.VIJAYAKUMAR ME., Ph.D.,
 PRINCIPAL

SASURIE COLLEGE OF ENGINEERING,
 Vijayamangalam - 638 056, Tirupur (Dt).



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

STUDENTS PARTICIPATION LIST - VALUE ADDED COURSE

“5G and Beyond: Next-Generation Wireless Technologies”

From 24.06.2019 to 28.06.2019 (5 days)

Duration : 30 Hours

Academic Year : 2019 -2020 / ODD

S.No.	Reg No.	Name of the Student	Year / Branch
1.	732418106004	SABITHA A	II/ECE
2.	732418106005	SUJITHRA P	II/ECE
3.	732417106002	AJITHKUMAR K	III/ECE
4.	732417106003	AJITHKUMAR S	III/ECE
5.	732417106005	ARAVIND V	III/ECE
6.	732417106008	GOKILAVANI M	III/ECE
7.	732417106010	JAYASEELAN B	III/ECE
8.	732417106011	KAYALVIZHI K	III/ECE
9.	732417106013	KOUSALYA DEVIR	III/ECE
10.	732417106016	NASREEN BANU J	III/ECE
11.	732417106017	NATESH R	III/ECE
12.	732417106018	NIMISHA M	III/ECE
13.	732417106019	NISHANTH S	III/ECE
14.	732417106020	NITHYANANTHAM N	III/ECE
15.	732417106021	PARTHIPAN S	III/ECE
16.	732417106023	RANJANI S	III/ECE
17.	732417106024	SANTHIYA R	III/ECE
18.	732417106027	SHANMUGAPRIYA S	III/ECE
19.	732417106028	SHARMILA M	III/ECE
20.	732417106030	THANGA RATHINAM A	III/ECE
21.	732417106031	VEERA SOWNDARIYA P	III/ECE
22.	732417106033	VINITHA B	III/ECE
23.	732417106501	ARTHI K	III/ECE
24.	732417106701	PRATHEEPA S	III/ECE
25.	732417106702	SELVARANI C	III/ECE
26.	732417106703	KANAGARAJ B	III/ECE
27.	732417106704	POOVIZHI R	III/ECE
28.	732417106705	PRIYADHARSHINI S	III/ECE
29.	732417106706	HEMAPRAKASH C	III/ECE
30.	732416106001	AARTHY C	IV/ECE

Dr.M.VIJAYAKUMAR ME., Ph.D.
PRINCIPAL



SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).



STUDENTS PARTICIPATION LIST - VALUE ADDED COURSE

S.No.	Reg No.	Name of the Student	Year / Branch
31.	732416106002	ABISH A	IV/ECE
32.	732416106004	ANJALI A	IV/ECE
33.	732416106006	BALA MANJULA DEVI R	IV/ECE
34.	732416106008	DEEPIKA K	IV/ECE
35.	732416106009	DHARANI R	IV/ECE
36.	732416106011	ELAVARASAN R	IV/ECE
37.	732416106013	JANANI S	IV/ECE
38.	732416106014	JEEVITHA S	IV/ECE
39.	732416106015	KARTHI A	IV/ECE
40.	732416106016	KAVIAMATHI T	IV/ECE
41.	732416106017	KAVTYARASU R	IV/ECE
42.	732416106018	KEERTHANA PRIYA R	IV/ECE
43.	732416106019	MALATHI S	IV/ECE
44.	732416106020	MANIKANDAN N	IV/ECE
45.	732416106021	MOHANLAL M	IV/ECE
46.	732416106022	MOUNIKA S	IV/ECE
47.	732416106023	MUTHAMIL SELVAN V	IV/ECE
48.	732416106024	NANDHAKUMARAN S	IV/ECE
49.	732416106025	NAVEENKUMAR C	IV/ECE
50.	732416106026	NIVITHA M	IV/ECE
51.	732416106028	PRADEEPA R K	IV/ECE
52.	732416106029	PRAKASHKUMAR M	IV/ECE
53.	732416106030	SANKAR M	IV/ECE
54.	732416106031	SANTHIYA R	IV/ECE
55.	732416106032	SANTHOSHKUMAR C	IV/ECE
56.	732416106033	SARAN P	IV/ECE
57.	732416106034	SARAVANAN R	IV/ECE
58.	732416106035	SHARATH CHANDRAS V	IV/ECE
59.	732416106036	SHRUTHI R	IV/ECE
60.	732416106037	SINDHIKA R	IV/ECE
61.	732416106038	SOWNDARYA N	IV/ECE
62.	732416106039	SURESH KUMAR S	IV/ECE
63.	732416106040	SWETHA S V	IV/ECE
64.	732416106041	VASANTHAMANI P	IV/ECE
65.	732416106042	VENGADESAN P	IV/ECE


Dr. M. VIJAYAKUMAR ME., Ph D.,
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COLLEGE OF ENGINEERING
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Affiliated to Anna University, Chennai

STUDENTS PARTICIPATION LIST - VALUE ADDED COURSE

S.No.	Reg No.	Name of the Student	Year / Branch
66.	732416106043	YASODHA S	IV/ECE
67.	732416106044	YUVARAJ V	IV/ECE

H. Sujatha
VAC Coordinator

Pravin
Ho/ECE

Dr. M. Vijayakumar
Dr. M. VIJAYAKUMAR M.E., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

STUDENTS ATTENDANCE LIST - VALUE ADDED COURSE

“5G and Beyond: Next-Generation Wireless Technologies”

From 24.06.2019 to 28.06.2019 (5 days)

Duration : 30 Hours

Academic Year : 2019 -2020/ ODD

S.No	Reg No.	Name of the Student	Year/ Branch	24.06.2019		25.06.2019		26.06.2019		27.06.2019		28.06.2019		No. of Hours Attended	Signature of the Student
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1.	732418106004	SABITHA A	II/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>Sabitha A</i>
2.	732418106005	SUJITHRA P	II/ECE	/	/	/	A	/	/	/	/	/	/	27	<i>P. Sujithra</i>
3.	732417106002	AJITHKUMAR K	III/ECE	/	/	/	/	A	A	/	/	/	/	24	<i>Ajith Kumar</i>
4.	732417106003	AJITHKUMAR S	III/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>Ajith Kumar</i>
5.	732417106005	ARAVIND V	III/ECE	/	/	/	/	A	A	/	/	/	/	24	<i>V. Aravind</i>
6.	732417106008	GOKILAVANI M	III/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>Gokilavani M</i>
7.	732417106010	JAYASEELAN B	III/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>Jayaseelan B</i>
8.	732417106011	KAYALVIZHI K	III/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>K. Kayalvizhi</i>
9.	732417106013	KOUSALYA DEVIR	III/ECE	/	/	/	A	/	/	/	/	/	/	27	<i>Kousalya R.</i>
10.	732417106016	NASREEN BANU J	III/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>Nasreen Banu J</i>
11.	732417106017	NATESH R	III/ECE	/	/	A	A	/	/	/	/	/	/	24	<i>Natesh R</i>
12.	732417106018	NIMISHA M	III/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>Nimisha M</i>
13.	732417106019	NISHANTH S	III/ECE	/	/	/	/	/	/	A	A	/	/	24	<i>S. Nishanth</i>

STUDENTS ATTENDANCE LIST - VALUE ADDED COURSE

S.No	Reg No.	Name of the Student	Year/ Branch	24.06.2019		25.06.2019		26.06.2019		27.06.2019		28.06.2019		No. of Hours Attended	Signature of the Student
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
14.	732417106020	NITHYANANTHAM N	III/ECE	/	/	A	/	/	/	/	/	/	/	27	Nurshy
15.	732417106021	PARTHIPAN S	III/ECE	/	/	/	/	/	/	/	/	/	/	30	Praj
16.	732417106023	RANJANI S	III/ECE	/	/	A	A	/	/	/	/	/	/	24	S. Ravi
17.	732417106024	SANTHIYA R	III/ECE	/	/	/	/	A	/	/	/	/	/	27	Santhiya
18.	732417106027	SHANMUGAPRIYA S	III/ECE	/	/	/	/	/	/	/	/	/	/	30	S. Shanmuga
19.	732417106028	SHARMILA M	III/ECE	/	/	/	/	A	/	/	/	/	/	27	M. Sharmila
20.	732417106030	THANGA RATHINAM A	III/ECE	/	/	/	/	/	/	/	/	/	/	30	Thanga
21.	732417106031	VEERA SOWNDARIYA P	III/ECE	/	/	/	/	/	/	A	/	/	/	27	Veera
22.	732417106033	VINITHA B	III/ECE	/	/	/	/	/	/	/	/	/	/	30	Vinitha
23.	732417106501	ARTHI K	III/ECE	/	/	A	A	/	/	/	/	/	/	24	Arthi
24.	732417106701	PRATHEEPA S	III/ECE	/	/	/	/	/	/	/	A	/	/	27	Pratheepa
25.	732417106702	SELVARANI C	III/ECE	/	/	/	/	/	/	/	/	/	/	30	Selvarani
26.	732417106703	KANAGARAJ B	III/ECE	/	/	/	/	/	A	/	/	/	/	27	Kanagaraj
27.	732417106704	POOVIZHI R	III/ECE	/	/	/	/	/	/	/	/	/	/	30	Poovizhi
28.	732417106705	PRIYADHARSHINI S	III/ECE	/	/	/	/	/	/	/	A	/	/	27	Priyadharshini
29.	732417106706	HEMAPRAKASH C	III/ECE	/	/	/	/	/	/	/	/	/	/	30	Hemaprakash
30.	732416106001	AARTHY C	IV/ECE	/	/	/	/	/	/	A	A	/	/	24	Aarthi
31.	732416106002	ABISH A	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Abish
32.	732416106004	ANJALI A	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Anjali

STUDENTS ATTENDANCE LIST - VALUE ADDED COURSE

S.No	Reg No.	Name of the Student	Year/ Branch	24.06.2019		25.06.2019		26.06.2019		27.06.2019		28.06.2019		No. of Hours Attended	Signature of the Student
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
33.	732416106006	BALA MANJULA DEVIR	IV/ECE	/	/	/	/	/	/	A	/	/	/	27	Bala
34.	732416106008	DEEPIKA K	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Deepika
35.	732416106009	DHARANI R	IV/ECE	/	/	/	/	A	A	/	/	/	/	24	Dharani
36.	732416106011	ELAVARASAN R	IV/ECE	/	/	/	/	/	A	/	/	/	/	27	Elavasan
37.	732416106013	JANANI S	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Janani
38.	732416106014	JEEVITHA S	IV/ECE	/	/	/	/	/	/	A	/	/	/	27	Jeevitha
39.	732416106015	KARTHI A	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Karthi
40.	732416106016	KAVIAMATHI T	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	T.Kaviyamathi
41.	732416106017	KAVIYARASU R	IV/ECE	/	/	/	/	/	/	A	/	/	/	27	Kaviyasarasu
42.	732416106018	KEERTHANA PRIYA R	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Keerthana
43.	732416106019	MALATHI S	IV/ECE	/	/	/	/	A	A	/	/	/	/	24	Malathi
44.	732416106020	MANIKANDAN N	IV/ECE	/	/	/	/	/	A	/	/	/	/	27	Manikandan
45.	732416106021	MOHANLAL M	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Mohanlal M
46.	732416106022	MOUNIKA S	IV/ECE	/	/	/	/	/	A	/	/	/	/	27	Monika
47.	732416106023	MUTHAMIL SELVAN V	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Muthamil
48.	732416106024	NANDHAKUMARAN S	IV/ECE	/	/	/	/	/	A	/	/	/	/	27	Nandhakumar
49.	732416106025	NAVEENKUMAR C	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	C.Naveen
50.	732416106026	NIVITHA M	IV/ECE	/	/	/	/	/	/	A	/	/	/	27	Nivitha
51.	732416106028	PRADEEPA R K	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	Pradeepa

Dr.M.VIJAYAKUMAR ME., Ph.D.

PRINCIPAL

SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 626 656, Tirupur (Dt).

STUDENTS ATTENDANCE LIST - VALUE ADDED COURSE

S.No	Reg No.	Name of the Student	Year/ Branch	24.06.2019		25.06.2019		26.06.2019		27.06.2019		28.06.2019		No. of Hours Attended	Signature of the Student
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
52.	732416106029	PRAKASHKUMAR M	IV/ECE	/	/	/	A	/	/	/	/	/	/	27	<i>[Signature]</i>
53.	732416106030	SANKAR M	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>M. Sankar</i>
54.	732416106031	SANTHIYA R	IV/ECE	/	/	/	A	A	/	/	/	/	/	24	<i>R. Santhiya</i>
55.	732416106032	SANTHOSHKUMAR C	IV/ECE	/	/	/	/	A	/	/	/	/	/	27	<i>S. Santhosha</i>
56.	732416106033	SARAN P	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>S. Saran</i>
57.	732416106034	SARAVANAN R	IV/ECE	/	/	/	/	/	/	/	A	/	/	27	<i>[Signature]</i>
58.	732416106035	SHARATH CHANDRAS V	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>V. Sharath Chandras</i>
59.	732416106036	SHRUTHI R	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>R. Shruthi</i>
60.	732416106037	SINDHIKA R	IV/ECE	/	/	/	/	/	A	/	/	/	/	27	<i>S. Sindhika</i>
61.	732416106038	SOWNDARYA N	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>S. Sowndarya</i>
62.	732416106039	SURESH KUMAR S	IV/ECE	/	/	/	/	/	/	A	A	/	/	24	<i>S. Suresh</i>
63.	732416106040	SWETHA S V	IV/ECE	/	/	/	/	/	A	/	/	/	/	27	<i>S. Swetha</i>
64.	732416106041	VASANTHAMANI P	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>P. Vasanthamani</i>
65.	732416106042	VENGADESAN P	IV/ECE	/	/	/	/	/	A	/	/	/	/	27	<i>P. Vengadesan</i>
66.	732416106043	YASODHA S	IV/ECE	/	/	/	/	/	/	/	/	/	/	30	<i>S. Yasodha</i>
67.	732416106044	YUVARAJ V	IV/ECE	/	/	/	/	/	A	/	/	/	/	27	<i>V. Yuvaraj</i>

V. Vijayakumar
VAC Coordinator

[Signature]
HOD/ECE

Dr.M.VIJAYAKUMAR ME., Ph.D.
 PRINCIPAL
 SASURIE COLLEGE OF ENGINEERING,
 Vijayamangalam - 633 056, Tirupur (Dt).



Report on Value Added Course

Title:	5G and Beyond: Next-Generation Wireless Technologies				
Resource Person:	Mr. Angelos Sapetsas, Trainer, Scientronics, Coimbatore-641004		Sree Venkatesan, Manager, Scientronics, Coimbatore-641004		
Date of conduct from :	24.06.2019	To:	28.06.2019	Duration:	30 Hours
Organized by :	ELECTRONICS AND COMMUNICATION ENGINEERING and IQAC in association with Scientronics				
Academic Year:	2019 – 2020			Semester:	ODD
Participant Year:	II, III, IV Year ECE		No. of Students Participated :	67	
Venue:	Lecture hall of II & III year ECE				

Outcome of Value Added Course (VAC)


At the end of the Course, Students can be able to

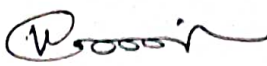
- Understanding of the key features and fundamental concepts of 5G technology, including its evolution from previous generations.
- Understand the allocation of spectrum and frequency bands for 5G, with a focus on millimeter-wave spectrum and its advantages.
- Gain insights into the integration of edge computing with 5G networks, understanding its benefits and applications in a 5G ecosystem.
- Gain awareness of emerging technologies beyond 5G, such as 6G, terahertz communication.
- Gain insights into the global deployment status of 5G networks.

Assessment Process

- Students, who are securing more than 70% on total score in the VAC test and secured more than 75% in VAC attendance is eligible to receive the course completion certificate for the VAC attended
- Total Score = (0.5 * Attendance in VAC out of 100 percentage + 0.5 * Test mark in VAC out of 100 marks)

No. of students successfully completed the VAC course is 67 Students based on the above assessment process.


VAC Co-ordinator


HoD/ ECE


Principal


Dr. M. VIJAYAKUMAR P. O. 2,
PRINCIPAL,
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 639 650, (Tamil Nadu)



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Certificate of Participation

This is to certify that Mr./Ms SABITHAA,II/ECE has
successfully completed the Value Added Course titled "5G and Beyond: Next-Generation Wireless Technologies"
Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie
College of Engineering and Sciontronics from 24-06-2019 to 28-06-2019 (5 Days).

K. S. Pradeep
Co-ordinator

W. S. Pradeep
Head of the Department

T. S. Pradeep
Principal


Dr.M.VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Certificate of Participation

This is to certify that Mr./Ms SUJITHRA P,II/ECE has
successfully completed the Value Added Course titled "5G and Beyond: Next-Generation Wireless Technologies"
Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie
College of Engineering and Sciontronics from 24-06-2019 to 28-06-2019 (5 Days).

H. Vijayavathi
Co-ordinator

Doosri
Head of the Department

T.S.N
Principal

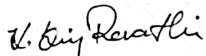

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Vijayamangalam - 633 056, Tirupur (Dt).

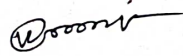


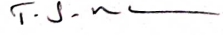
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Certificate of Participation

This is to certify that Mr./Ms ARAVIND V,III/ECE has
successfully completed the Value Added Course titled "5G and Beyond: Next-Generation Wireless Technologies"
Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie
College of Engineering and Sciontronics from 24-06-2019 to 28-06-2019 (5 Days).


Co-ordinator


Head of the Department


Principal

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Certificate of Participation

This is to certify that Mr./Ms ARTHI K.III/ECE has
successfully completed the Value Added Course titled "5G and Beyond: Next-Generation Wireless Technologies"
Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie
College of Engineering and Sciontronics from 24-06-2019 to 28-06-2019 (5 Days).

[Signature]
Co-ordinator

[Signature]
Head of the Department

[Signature]
Principal

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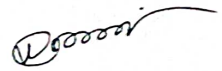


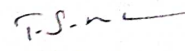
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Certificate of Participation


This is to certify that Mr./Ms DEEPIKA K.IV/ECE has
successfully completed the Value Added Course titled "5G and Beyond: Next-Generation Wireless Technologies"
Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie
College of Engineering and Sciontronics from 24-06-2019 to 28-06-2019 (5 Days).


Co-ordinator


Head of the Department


Principal



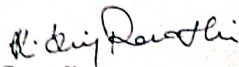

Dr.M.VIJAYAKUMAR ME., Ph.D.,
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Vijayamangalam - 638 056, Tirupur (Dt).



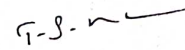
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING


Certificate of Participation

This is to certify that Mr./Ms DHARANI R,IV/ECE has
successfully completed the Value Added Course titled "5G and Beyond: Next-Generation Wireless Technologies"
Organized by the *Department of Electronics and Communication Engineering* in association with IQAC of Sasurie
College of Engineering and Sciontronics from 24-06-2019 to 28-06-2019 (5 Days).


Co-ordinator


Head of the Department


Principal


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SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

TEST QUESTION PAPER - VALUE ADDED COURSE

“5G and Beyond: Next-Generation Wireless Technologies”

From 24.06.2019 to 28.06.2019 (5 days)

Duration : 30 Hours

Academic Year : 2019 -2020 / ODD

Date of Test : 28.06.2019

MULTIPLE CHOICE QUESTIONS (25 X 1 = 25 Marks)

Name of the Student:

Year/Sem:

AU Register Number:

Answer all the questions:

1. What is the primary focus of the course "5G and Beyond: Next-Generation Wireless Technologies"?
 - a. 4G Technology
 - b. Internet of Things (IoT)
 - c. Artificial Intelligence
 - d. Next-Generation Wireless Technologies
2. Which component is a part of the 5G core network architecture?
 - a. Massive MIMO
 - b. Small Cells
 - c. Radio Access Network (RAN)
 - d. Edge Computing
3. What is the significance of millimeter-wave spectrum in 5G?
 - a. Increased Coverage
 - b. Higher Data Rates
 - c. Lower Latency
 - d. Improved Security
4. How does 5G contribute to the Internet of Things (IoT)?
 - a. By reducing spectrum allocation
 - b. By enabling massive IoT connectivity
 - c. By limiting IoT applications
 - d. By decreasing network slicing



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5. What technology is integrated with 5G networks to support real-time applications at the network edge?
 - a. Edge Computing
 - b. Massive MIMO
 - c. Network Slicing
 - d. Holographic Communication

6. What is the concept of network slicing in 5G?
 - a. Allocating different frequency bands
 - b. Dividing the network into virtual networks
 - c. Implementing beamforming techniques
 - d. Enhancing security protocols

7. What is a major security challenge in 5G networks?
 - a. Reduced Latency
 - b. Network Slicing
 - c. Increased Bandwidth
 - d. Security Threats

8. What does the term "Beyond 5G" refer to?
 - a. Next-generation smartphones
 - b. Technologies emerging after 5G
 - c. 4G LTE advancements
 - d. Internet of Things (IoT) devices

9. How does AI contribute to 5G systems?
 - a. By decreasing network coverage
 - b. By increasing security vulnerabilities
 - c. By optimizing and automating networks
 - d. By limiting data rates

10. What is the global deployment status of 5G networks?
 - a. Limited to developed countries
 - b. Fully deployed in all regions
 - c. Still in the testing phase
 - d. Restricted to specific industries

11. Which technology is associated with terahertz communication in wireless networks?
 - a. Virtual Reality (VR)
 - b. Quantum Computing
 - c. Advanced Encryption Standard (AES)
 - d. Next-Generation Wireless Technologies

12. What is the primary goal of edge computing in 5G networks?
 - a. Increasing network latency
 - b. Reducing data processing at the edge
 - c. Enhancing real-time application support
 - d. Minimizing IoT connectivity


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13. In the context of 5G, what does MIMO stand for?
- Mobile Internet Management and Optimization
 - Massive Internet of Things
 - Multiple Input, Multiple Output
 - Microservices in Mobile Operations
14. What is the primary benefit of using network slicing in 5G?
- Reduced Spectrum Allocation
 - Increased Security Threats
 - Customization for Different Services
 - Lower Data Rates
15. Which frequency bands are commonly associated with millimeter-wave spectrum in 5G?
- 600 MHz - 1 GHz
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 - 1.8 GHz - 2.2 GHz
16. What is the primary advantage of using small cells in 5G networks?
- Extended Coverage
 - Higher Data Rates
 - Lower Latency
 - Improved Network Slicing
17. How does 5G contribute to lower latency in wireless communication?
- By using lower frequency bands
 - By deploying small cells
 - By implementing beamforming techniques
 - By reducing the signaling time
18. Which of the following is an example of an application that benefits from edge computing in a 5G network?
- Email Communication
 - Virtual Reality Gaming
 - Text Messaging
 - Static Web Browsing
19. What role does spectrum allocation play in the performance of 5G networks?
- It has no impact on network performance
 - It determines the coverage area
 - It influences data rates and capacity
 - It affects security protocols
20. What is the primary objective of implementing beamforming techniques in 5G?
- Reducing network latency
 - Enhancing security protocols
 - Improving coverage and capacity
 - Limiting the use of network slicing



21. What is the primary focus of regulatory considerations in 5G deployment?
 - a. Reducing data rates
 - b. Ensuring network slicing compatibility
 - c. Managing spectrum allocation
 - d. Minimizing the use of edge computing

22. How does holographic communication contribute to the future of wireless technologies?
 - a. By increasing latency
 - b. By enhancing security threats
 - c. By providing immersive communication experiences
 - d. By limiting network slicing capabilities

23. What is the main purpose of integrating AI and machine learning in 5G networks?
 - a. Increasing security vulnerabilities
 - b. Optimizing and automating network operations
 - c. Reducing the use of edge computing
 - d. Limiting the potential of IoT connectivity

24. Which technology is associated with holographic communication in wireless networks?
 - a. Virtual Reality (VR)
 - b. Augmented Reality (AR)
 - c. Quantum Computing
 - d. Network Slicing

25. What is the primary focus of 6G technology?
 - a. Improving 5G data rates
 - b. Enhancing security protocols
 - c. Enabling new communication paradigms
 - d. Reducing the deployment cost of 5G networks



Me
Dr. M. VIJAYAKUMAR M.E., Ph.D.
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Vijayamangalam - 633 056, Tirupur (Dt).



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Approved by AICTE, New Delhi
Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

TEST QUESTION ANSWER KEY - VALUE ADDED COURSE

“5G and Beyond: Next-Generation Wireless Technologies”

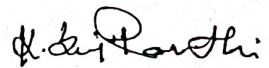
From 24.06.2019 to 28.06.2019 (5 days)

Duration : 30 Hours

Academic Year : 2019 -2020 / ODD

Date of Test : 28.06.2019

1	d	6	b	11	c	16	b	21	c
2	c	7	d	12	c	17	b	22	c
3	b	8	b	13	c	18	b	23	b
4	b	9	c	14	c	19	c	24	b
5	a	10	c	15	c	20	c	25	c


VAC Coordinator


Dr. M. VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 636 056, Tirupur (Dt).



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Affiliated to Anna University, Chennai.

21

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DEPARTMENT OF ELECTRONICS AND COMMUNICATIONS
ENGINEERING

TEST QUESTION PAPER - VALUE ADDED COURSE

"5G and Beyond: Next-Generation Wireless Technologies"

From 24.06.2019 to 28.06.2019 (5 days)

Duration : 30 Hours

Academic Year : 2019 -2020 / ODD

Date of Test : 28.06.2019

MULTIPLE CHOICE QUESTIONS (25 X 1 = 25 Marks)

Name of the Student: AJITH KUMAR.K Year/Sem: III / V

AU Register Number: 732417106002

Answer all the questions:

1. What is the primary focus of the course "5G and Beyond: Next-Generation Wireless Technologies"?

- a. 4G Technology
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2. Which component is a part of the 5G core network architecture?

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3. What is the significance of millimeter-wave spectrum in 5G?

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- d. Improved Security

4. How does 5G contribute to the Internet of Things (IoT)?

- a. By reducing spectrum allocation
- b. By enabling massive IoT connectivity
- c. By limiting IoT applications
- d. By decreasing network slicing

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 - By limiting network slicing capabilities
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 - Optimizing and automating network operations
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- Improving 5G data rates
 - Enhancing security protocols
 - Enabling new communication paradigms
 - Reducing the deployment cost of 5G networks

No →

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PRINCIPAL
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Vijayamangalam - 638 056, Tirupur (Dt)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSESSMENT SHEET - VALUE ADDED COURSE
“5G and Beyond: Next-Generation Wireless Technologies”

From 24.06.2019 to 28.06.2019 (5 days)

Duration : 30 Hours

Academic Year : 2019 -2020/ ODD


S.No	Reg No.	Name of the Student	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL Score (100) (50% of A + 50% of B)
				No. of Hours Attended	Attendance Score (100) (A)	No. of Correct Answers	MCQ Score (100) (B)	
1.	732418106004	SABITHA A	II/ECE	30	100	19	76	88
2.	732418106005	SUJITHRA P	II/ECE	27	90	19	76	83
3.	732417106002	AJITHKUMAR K	III/ECE	24	80	21	84	82
4.	732417106003	AJITHKUMAR S	III/ECE	30	100	18	72	86
5.	732417106005	ARAVIND V	III/ECE	24	80	20	80	80
6.	732417106008	GOKILAVANI M	III/ECE	30	100	19	76	88
7.	732417106010	JAYASEELAN B	III/ECE	30	100	19	76	88
8.	732417106011	KAYALVIZHI K	III/ECE	30	100	18	72	86
9.	732417106013	KOUSALYA DEVIR	III/ECE	27	90	19	76	83
10.	732417106016	NASREEN BANU J	III/ECE	30	100	19	76	88
11.	732417106017	NATESH R	III/ECE	24	80	20	80	80
12.	732417106018	NIMISHA M	III/ECE	30	100	19	76	88
13.	732417106019	NISHANTH S	III/ECE	24	80	21	84	82


Dr. M. VIJAYAKUMAR ME, Ph.D.,
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 SASURIE COLLEGE OF ENGINEERING,
 Vijayamangalam - 633 055, Tirupur (Dt).

ASSESSMENT SHEET - VALUE ADDED COURSE

S.No	Reg No.	Name of the Student	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL Score (100) (50% of A + 50% of B)
				No. of Hours Attended	Attendance Score (100) (A)	No. of Correct Answers	MCQ Score (100) (B)	
14.	732417106020	NITHYANANTHAM N	III/ECE	27	90	19	76	83
15.	732417106021	PARTHIPAN S	III/ECE	30	100	20	80	90
16.	732417106023	RANJANI S	III/ECE	24	80	21	84	82
17.	732417106024	SANTHIYA R	III/ECE	27	90	18	72	81
18.	732417106027	SHANMUGAPRIYA S	III/ECE	30	100	21	84	92
19.	732417106028	SHARMILA M	III/ECE	27	90	19	76	83
20.	732417106030	THANGA RATHINAM A	III/ECE	30	100	19	76	88
21.	732417106031	VEERA SOWNDARIYA P	III/ECE	27	90	19	76	83
22.	732417106033	VINITHA B	III/ECE	30	100	20	80	90
23.	732417106501	ARTHI K	III/ECE	24	80	21	84	82
24.	732417106701	PRATHEEPA S	III/ECE	27	90	18	72	81
25.	732417106702	SELVARANI C	III/ECE	30	100	21	84	92
26.	732417106703	KANAGARAJ B	III/ECE	27	90	19	76	83
27.	732417106704	POOVIZHI R	III/ECE	30	100	19	76	88
28.	732417106705	PRIYADHARSHINI S	III/ECE	27	90	19	76	83
29.	732417106706	HEMAPRAKASH C	III/ECE	30	100	20	80	90
30.	732416106001	AARTHY C	IV/ECE	24	80	21	84	82
31.	732416106002	ABISH A	IV/ECE	30	100	21	84	92
32.	732416106004	ANJALI A	IV/ECE	30	100	21	84	92

Dr.M.VIJAYAKUMAR M.E., Ph.D.,
 PRINCIPAL


SASURIE COLLEGE OF ENGINEERING,
 Vijayamangalam - 638 058, Tirupur (Dt).

ASSESSMENT SHEET - VALUE ADDED COURSE

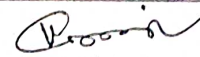
S.No	Reg No.	Name of the Student	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL Score (100) (50% of A + 50% of B)
				No. of Hours Attended	Attendance Score (100) (A)	No. of Correct Answers	MCQ Score (100) (B)	
33.	732416106006	BALA MANJULA DEVI R	IV/ECE	27	90	19	76	83
34.	732416106008	DEEPIKA K	IV/ECE	30	100	20	80	90
35.	732416106009	DHARANI R	IV/ECE	24	80	21	84	82
36.	732416106011	ELAVARASAN R	IV/ECE	27	90	18	72	81
37.	732416106013	JANANI S	IV/ECE	30	100	21	84	92
38.	732416106014	JEEVITHA S	IV/ECE	27	90	19	76	83
39.	732416106015	KARTHI A	IV/ECE	30	100	19	76	88
40.	732416106016	KAVIAMATHI T	IV/ECE	30	100	21	84	92
41.	732416106017	KAVIYARASU R	IV/ECE	27	90	19	76	83
42.	732416106018	KEERTHANA PRIYA R	IV/ECE	30	100	20	80	90
43.	732416106019	MALATHI S	IV/ECE	24	80	21	84	82
44.	732416106020	MANIKANDAN N	IV/ECE	27	90	18	72	81
45.	732416106021	MOHANLAL M	IV/ECE	30	100	21	84	92
46.	732416106022	MOUNIKA S	IV/ECE	27	90	19	76	83
47.	732416106023	MUTHAMIL SELVAN V	IV/ECE	30	100	19	76	88
48.	732416106024	NANDHAKUMARAN S	IV/ECE	27	90	19	76	83
49.	732416106025	NAVEENKUMAR C	IV/ECE	30	100	20	80	90
50.	732416106026	NIVITHA M	IV/ECE	27	90	19	76	83
51.	732416106028	PRADEEPA R K	IV/ECE	30	100	20	80	90


Dr.M.VIJAYAKUMAR ME, Ph.D.
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ASSESSMENT SHEET - VALUE ADDED COURSE

S.No	Reg No.	Name of the Student	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL Score (100) (50% of A + 50% of B)
				No. of Hours Attended	Attendance Score (100) (A)	No. of Correct Answers	MCQ Score (100) (B)	
52.	732416106029	PRAKASHKUMAR M	IV/ECE	27	90	19	76	83
53.	732416106030	SANKAR M	IV/ECE	30	100	20	80	90
54.	732416106031	SANTHIYA R	IV/ECE	24	80	21	84	82
55.	732416106032	SANTHOSH KUMAR C	IV/ECE	27	90	18	72	81
56.	732416106033	SARAN P	IV/ECE	30	100	21	84	92
57.	732416106034	SARAVANAN R	IV/ECE	27	90	19	76	83
58.	732416106035	SHARATH CHANDRAS V	IV/ECE	30	100	19	76	88
59.	732416106036	SHRUTHI R	IV/ECE	30	100	21	84	92
60.	732416106037	SINDHIKA R	IV/ECE	27	90	19	76	83
61.	732416106038	SOWNDARYA N	IV/ECE	30	100	20	80	90
62.	732416106039	SURESH KUMAR S	IV/ECE	24	80	21	84	82
63.	732416106040	SWETHA S V	IV/ECE	27	90	18	72	81
64.	732416106041	VASANTHAMANI P	IV/ECE	30	100	21	84	92
65.	732416106042	VENGADESAN P	IV/ECE	27	90	19	76	83
66.	732416106043	YASODHA S	IV/ECE	30	100	19	76	88
67.	732416106044	YUVARAJ V	IV/ECE	27	90	19	76	83


 VAC Coordinator


 HOD/ECE


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