RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

From

01/08/2022

Mrs. S. Sultana Farveen
Senior Assistant Professor/ECE
RAAK College of Engineering and Technology
Puducherry -110

To

The Principal
RAAK College of Engineering And Technology
Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program/Value added Course on **"22ECE01-Arm System Architecture"** - reg.

This is to bring to your kind notice that the Skill Development Team is planning to conduct a Program on **"22ECE01-Arm System Architecture"** for all the Final Year Electronics and communication Engineering students from 09-08-2022 to 13-08-2022.

The main focus of this program is to provide a better exposure to our students on Arm System Architecture.

The syllabus and course plan structured are not listed in the Pondicherry University Curriculum and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,

S. Sultana farveen
SAP/ECE

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

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RAAKCET/PRINCIPAL/CIR/AUG2022 **02/08/2022**

CIRCULAR

This is to inform that the Skill Development Team is planning to conduct a value added course on **"22ECE01- Arm System Architecture"** for all the Final Year Electronics and communication Engineering students from 09-08-2022 to 13-08-2022. Students are asked to utilize this opportunity and improve their skills.

PRINCIPAL

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

1. All HoDs
2. Office

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING PRESENTS

VALUE ADDED COURSE ON

ARM SYSTEM ARCHITECTURE (ONLINE MODE)

2022-2023

DATE: 09/08/2022 to 13/08/2022

VENUE: RAAKCET

TIME: 09 am to 04 pm

Resource Person:

Mr. S. Krithiga
Assistant Professor,
Sri Manakula Vinayagar Institute of Tech.

For Registration Contact:

Mrs. H. Rajeshwary, AP/ ECE.,
8897171835.

HOD

Mr. Ayyapasamy

RAAK College of Engineering & Technology

PRINCIPAL

Dr. S. Seenuvasamurthi

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No. 1, Muthupillai Palayam Road,
Uruvaipet Post,
Puducherry - 605 110

raakengg@mail.com

www.raakengg.com

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VALUE ADDED COURSES
2022-2023
Department of Electronics and Communication Engineering
22ECE01- Arm System Architecture
Syllabus

Duration: 30 hours

Course Objective:

- The objective of this course is to give the students a through exposure to ARM architecture
- Make the students to learn the ARM programming
- To learn about Thumb programming models.
- To study various types of coprocessors and design suitable co-processor interface to ARM processor

Course Outcome:

Upon successful completion of the course students able to

- Understand the programmer's model of ARM processor and test the assembly level programming.
- Analyze various types of coprocessors and design suitable co-processor interface to ARM processor.
- Analyze floating point processor architecture and its architectural support for higher level language.
- To aware of the Thumb mode of operation of ARM.

Module 1: ARM programmer's model **(6 Hours)**

RISC machine. ARM programmer's model. ARM Instruction Set. Assembly level language programming. Development tools.

Module 2: ARM organization **(6 Hours)**

ARM organization. ARM instruction execution. ARM implementation. ARM coprocessor interface. Flynn's Taxonomy, SIMD and Vector Processors, Vector Floating Point Processor (VFP), VFP and ARM interactions, vector operation.

Module 3: Floating point architecture **(6 Hours)**

Floating point architecture. Expressions. Conditional statements. Loops. Functions and procedures. Run time environment. Interrupt response. Interrupt processing. Interrupt Handling schemes, Examples of Interrupt Handlers.

Module 4: Thumb programmer's model. **(6 Hours)**

Thumb programmer's model. Thumb Instruction set. Thumb implementation. AMBA Overview, Typical AMAB Based Microcontroller, AHB bus features, AHB Bus transfers, APB bus transfers and APB Bridge.

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PRINCIPAL
RAAK College of Engineering & Technology
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Puducherry - 605 110

Module 5: Memory hierarchy. **(6 Hours)**

Memory hierarchy. Architectural support for operating system. Memory size and speed. Cache memory management. Operating system. ARM processor chips. Features of Raspberry Pi and its applications.

Course Designed by **Approved by** **Principal**

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PRINCIPAL
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Sulthanpet Post,
Puducherry - 605 110

CO - ATTAINMENT MAPPING

Sl. No	Register Number	Student Name	CO1	CO2	CO3	CO4
1	19TC1101	ABIRAMI S	✓	✓	✓	✓
2	19TC1102	BENINAL G	✓	✓	✓	✓
3	19TC1103	DINESH KUMAR V	✓	✓	✓	✓
4	19TC1104	GAUTHAM S	✓	✓	✓	✓
5	19TC1105	GOVINDARAJ K	✓	✓	✓	✓
6	19TC1106	I.KARTHESWARAN	✓	✓	✓	✓
7	19TC1107	I.MUTHURAMAN	✓	✓	✓	✓
8	19TC1108	KALAIVANAN M	✓	✓	✓	✓
9	19TC1109	KISHORE RAJAN N	✓	✓	✓	✓
10	19TC1110	NARAYANAN B	✓	✓	✓	✓
11	19TC1112	RAJALAKSHMI S	✓	✓	✓	✓
12	19TC1113	RESMINA FARVIN M	✓	✓	✓	✓
13	19TC1114	S.JEEVANANDAM	✓	✓	✓	✓
14	19TC1115	SATHISH N	✓	✓	✓	✓
15	19TC1116	SOORIYA D	✓	✓	✓	✓
16	19TC1117	SUGANYA M	✓	✓	✓	✓
17	19TC1118	YOGAA SUPARNA K P	✓	✓	✓	✓

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VALUE ADDED COURSES

2022-2023

Department of Electronics and Communication Engineering

22ECE01- Arm System Architecture

COURSE PLAN

S.no	Date	Hours	Time	Topic	Resourse person
DAY -1					
1	09.08.22	1,2	9 AM -11 AM	RISC machine. ARM programmer's model.	Mr.K.Sabarinathan & Mrs.S.Krithiga
2		3,4	11.15AM – 1.15 PM	ARM Instruction Set. Assembly level language programming.	Mr.K.Sabarinathan
3		5,6	2 PM -4 PM	Development tools. ARM organization. ARM instruction execution	Mrs.S.Krithiga
DAY 2					
4	10.08.22	7,8	9 AM -11 AM	ARM implementation. ARM coprocessor interface. Flynn's Taxonomy.	Mr.K.Sabarinathan
5		9,10,	11.15AM – 1.15 PM	SIMD and Vector Processors, Vector Floating Point Processor (VFP).	Mrs.S.Krithiga
6		11,12	2 PM -4 PM	VFP and ARM interactions, vector operation.	Mr.K.Sabarinathan
DAY -3					
7	11.08.22	13,14	9 AM -11 AM	Floating point architecture. Expressions. Conditional statements.	Mrs.S.Krithiga
8		15,16	11.15AM – 1.15 PM	Loops. Functions and procedures. Run time environment. Interrupt response	Mr.K.Sabarinathan
9		17,18	2 PM -4 PM	Interrupt processing. Interrupt Handling schemes, Examples of Interrupt Handlers.	Mrs.S.Krithiga
DAY -4					
10	12.08.22	19,20	9 AM -11 AM	Thumb programmer's model, Thumb Instruction set.	Mr.K.Sabarinathan

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PRINCIPAL
RAAK College of Engineering & Technology
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Puducherry - 605 110

11		21,22	11.15AM – 1.15 PM	Thumb implementation. AMBA Overview, Typical AMAB Based Microcontroller	Mrs.S.Krithiga
12		23,24	2 PM -4 PM	AHB bus features, AHB Bus transfers, APB bus transfers and APB Bridge.	Mr.K.Sabarinathan
DAY -5					
13	13.08.22	25,26	9 AM -11 AM	Memory hierarchy. Architectural support for operating system	Mrs.S.Krithiga
14		27,28	11.15AM – 1.15 PM	Memory size and speed	Mr.K.Sabarinathan
15		29,30	2 PM -4 PM	Cache memory management.	Mrs.S.Krithiga
DAY -6					
16	14.08.22	31,32	9 AM -11 AM	Operating system.	Mr.K.Sabarinathan
17		33,34	11.15AM – 1.15 PM	ARM processor chips.	Mrs.S.Krithiga
18		35,36	2 PM -4 PM	Features of Raspberry Pi and its applications.	Mr.K.Sabarinathan
ASESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION *					

BREAK TIME: 11.00 TO 11.15 AM **LUNCH BREAK: 1.15 PM TO 2.00 PM**

COURSE DESIGNED BY
Mrs. S. SULTANA FARVEEN

APPROVED BY
SKILL DEVELOPMENT TEAM

PRINCIPAL
Dr.S.SEENUVASAMURTHI

RAAK College of Engineering & Technology

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RAAK College of Engineering & Technology
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VALUE ADDED COURSES
2022-2023
Department of Electronics and Communication Engineering
EVENT REPORT

Name of the Course: 22ECE01- ARM System Architecture

Name of the Instructors: Mr.K.Sabarinathan & Mrs.S.Krithiga

Year/ Branch: IV/ ECE

Duration of Course: 30 Hours (09-08-2022 to 13-08-2022)

Assessment Date: 20.08.2022

Post Event Summary:

The course was inaugurated on 09-08-2022 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks.

On 20.08.2022 assessment was conducted and feedbacks were collected from all the participants.

CO - Attainment:

CO1: Understand the programmer's model of ARM processor and test the assembly level programming.

CO2: Analyze various types of coprocessors and design suitable co-processor interface to ARM processor.

CO3: Analyze floating point processor architecture and its architectural support for higher level language.

CO4: Become aware of the Thumb mode of operation of ARM.

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Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
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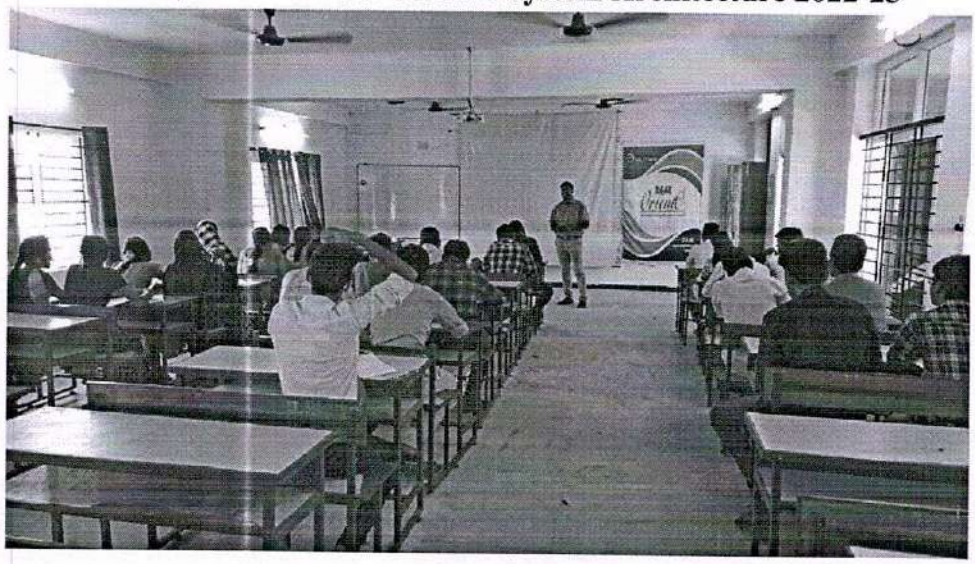
Value Added Courses On Arm System Architecture 2022-23



Loops. Functions and procedures. Run time environment. Interrupt response on 11.08.22

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RAAK College of Engineering & Technology
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From

01/08/2022

Mrs. R.Aarthi

Assistant Professor/ ECE

RAAK College of Engineering and Technology

Puducherry -110

To

The Principal

RAAK College of Engineering and Technology

Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program / Value added Course on **"22ECE02 - Network and Protocols"** - reg.

This is to bring to your kind notice that the Skill Development Team is planning to conduct a Program on **"22ECE02 - Network and Protocols"** for all the third Year ECE students from 09-08-2022 to 13-08-2022.

The main focus of this program is to provide a better exposure to our students on the Network and Protocols.

The syllabus and course plan structured are not listed in the Pondicherry University Curriculum and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,

R. AARTHI
AP/ECE

RAAK College of Engineering & Technology

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PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road.
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RAAKCET/PRINCIPAL/CIR/AUG2022 **02 /08/2022**

CIRCULAR

This is to inform that the Skill Development Team is planning to conduct a value added course **"22ECE02 - Network and Protocols"** for all the third Year ECE Department students from 09-08-2022 to 13-08-2022. Students are asked to utilize this opportunity and improve their skills.

PRINCIPAL

Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

1. All HoDs
2. Office

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PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
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Puducherry - 605 11

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING PRESENTS

VALUE ADDED COURSE ON

NETWORK AND PROTOCOLS

2022-2023

DATE: 09/08/2022 to 13/08/2022

VENUE: RAAKCET

TIME: 09 am to 04 pm

Resource Person:

Mrs. S. Krithiga
Assistant Professor,
Sri Manakula Vinayagar Institute of Tech.

For Registration Contact:

Mr. S. Sasaidrakumar, AP/ ECE.,
6385714005.

HOD

Mr. Ayyapasamy

PRINCIPAL

Dr. S. Seenuvasamurthi

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Murthipillai Palayam Road,
Sethampet Post,
Puducherry - 605 110

raakengg@mail.com

www.raakengg.com

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VALUE ADDED COURSES

2022-2023

Department Of Electronics and Communication Engineering

22ECE02 – NETWORK AND PROTOCOLS

Syllabus

Duration: 30 hours

Course Objective:

- Understand the basic concepts and architecture of computer networks.
- Learn about the different types of networks and their applications.
- Gain knowledge of key networking protocols and their functions.
- Develop skills to design and analyze network protocols.

Course Outcome:

Upon successful completion of the course students able to

- Comprehensive Understanding of Network Concepts and Architectures.
- Knowledge of Physical and Data Link Layers.
- Understanding of Transport Layer Protocols.
- Knowledge of Application Layer Protocols.

Module 1: Introduction to Networking

Definition and importance of networks Types of networks (LAN, WAN, MAN, PAN) Network topologies (star, ring, bus, mesh) OSI and TCP/IP models Layers of network architecture Functions of each layer in the OSI and TCP/IP models

Module 2: Physical and Data Link Layers

Transmission media (wired and wireless) Signal transmission and modulation Network devices (hubs, switches, routers)Data link layer protocols (Ethernet, PPP, HDLC) MAC addressing and ARP Error detection and correction (CRC, Hamming code)

Module 3: Network Layer

IP addressing (IPv4 and IPv6) Subnetting and CIDR Routing principles and algorithms (RIP, OSPF, BGP) Network Address Translation (NAT) ICMP and its applications Quality of Service (QoS) and traffic management

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Module 4: Transport Layer

TCP and UDP: features and differences Connection establishment and termination Flow control and congestion control Multiplexing and demultiplexing Reliable data transfer mechanisms Performance issues and optimization

Module 5: Application Layer

DNS, HTTP, HTTPS, FTP, SMTP, IMAP Protocol operation and applications Client-server and peer-to-peer architectures Basic principles of network security Cryptography and encryption techniques Security protocols (SSL/TLS, IPsec)

R. Aarj
Course Designed by

Approved by

Principal

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road
Sulthanpet Post

CO - ATTAINMENT MAPPING

Sl. No	Register Number	Student Name	CO1	CO2	CO3	CO4
1.	20TC0501	AKASH M	✓	✓	✓	✓
2.	20TC0502	AKASH M	✓	✓	✓	✓
3.	20TC0503	ANKANI LEELA SAI VARMA	✓	✓	✓	✓
4.	20TC0505	BALAJI S	✓	✓	✓	✓
5.	20TC0506	BHARATHI K	✓	✓	✓	✓
6.	20TC0507	FARIDH KHAN J	✓	✓	✓	✓
7.	20TC0508	PRAVIN R	✓	✓	✓	✓
8.	20TC0509	PURUSHOTHAMAN D	✓	✓	✓	✓
9.	20TC0510	RAJESWARI R	✓	✓	✓	✓
10.	20TC0512	SATHEESH KUMAR A	✓	✓	✓	✓
11.	20TC0513	SHARMILA S	✓	✓	✓	✓
12.	20TC0514	SRI HARI B	✓	✓	✓	✓
13.	20TC0515	SWATHI S	✓	✓	✓	✓
14.	20TC0516	THAYUMANAVAR S	✓	✓	✓	✓
15.	20TCL046	JEGAN PRABATH A	✓	✓	✓	✓
16.	20TCL047	RAJALAKSHMI J	✓	✓	✓	✓

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VALUE ADDED COURSES

2022-2023

Department Of Electronics and Communication Engineering

22ECE02 – NETWORK AND PROTOCOLS

COURSE PLAN

S.no	Date	Hours	Time	Topic	Resource Person
DAY -1					
1	09.08.22	1,2	9 AM -11 AM	Definition and importance of networks Types of networks (LAN, WAN, MAN, PAN)	Mrs.S.Krithiga & Mr.K.Sabarinathan
2		3,4	11.15AM – 1.15 PM	Network topologies (star, ring, bus, mesh),OSI and TCP/IP models, Layers of network architecture	Mrs.S.Krithiga
3		5,6	2 PM -4 PM	Functions of each layer in the OSI and TCP/IP models	Mr.K.Sabarinathan
DAY-2					
4	10.08.22	7,8	9 AM -11 AM	Transmission media (wired and wireless).Signal transmission and modulation. Network devices (hubs, switches, routers)	Mrs.S.Krithiga
5		9,10,	11.15 AM – 1.15 PM	Data link layer protocols (Ethernet, PPP, HDLC).MAC addressing and ARP.Error detection and correction (CRC, Hamming code)	Mr.K.Sabarinathan
6		11,12	2 PM -4 PM	IP addressing (IPv4 and IPv6)Subnetting and CIDR	Mrs.S.Krithiga
7	11.08.22	13,14	9 AM -11 AM	Routing principles and algorithms (RIP, OSPF, BGP),Network Address Translation (NAT)	Mr.K.Sabarinathan
8		15,16	11.15 AM – 1.15 PM	ICMP and its applications,Quality of Service (QoS) and traffic management,	Mrs.S.Krithiga
9		17,18	2 PM -4 PM	TCP and UDP: features and differences	Mr.K.Sabarinathan
DAY -4					
10	12.08.22	19,20	9 AM -11 AM	Connection establishment and termination,Flow control and congestion control,	Mrs.S.Krithiga

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11		21,22	11.15AM – 1.15 PM	Multiplexing and demultiplexing	Mr.K.Sabarinathan
12		23,24	2 PM -4PM	Reliable data transfer mechanismsPerformance issues and optimization	Mrs.S.Krithiga
DAY -5					
13	13.08.22	25,26	9AM -11AM	DNS, HTTP, HTTPS, FTP, SMTP, IMAP Protocol operation and applications	Mr.K.Sabarinathan
14		27,28	11.15AM – 1.15 PM	Client-server and peer-to-peer architecturesSecurity protocols	Mrs.S.Krithiga
15		29,30	2 PM -4 PM	Basic principles of network secure Cryptography and encryption techniques	Mr.K.Sabarinathan
ASESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION *					

BREAK TIME: 11.00 TO 11.15 AM **LUNCH BREAK: 1.15 PM TO 2.00 PM**

COURSE DESIGNED BY
Mrs. R. AARTHI

APPROVED BY
SKILL DEVELOPMENT TEAM

PRINCIPAL
Dr.S.SEENUVASAMURTHI

RAAK College of Engineering & Technology

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PRINCIPAL
RAAK College of Engineering & Technology
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VALUE ADDED COURSES

2022-2023

Department Of Electronics and Communication Engineering

EVENT REPORT

Name of the Course: 22ECE02- Network and Protocols

Name of the Instructors: Mrs.S.Krithiga & Mr.K.Sabarinathan

Year/ Branch: III/ECE

Duration of Course: 30 Hours (09-08-2022 to 13-08-2022)

Assessment Date: 20.08.2022

Post Event Summary:

The course was inaugurated on 09-08-2022 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks. On 20.08.2022 assessment was conducted and feedbacks were collected from all the participants.

CO - Attainment:

CO1: Comprehensive Understanding of Network Concepts and Architectures.

CO2: Knowledge of Physical and Data Link Layers.

CO3: Understanding of Transport Layer Protocols.

CO4: Knowledge of Application Layer Protocols.

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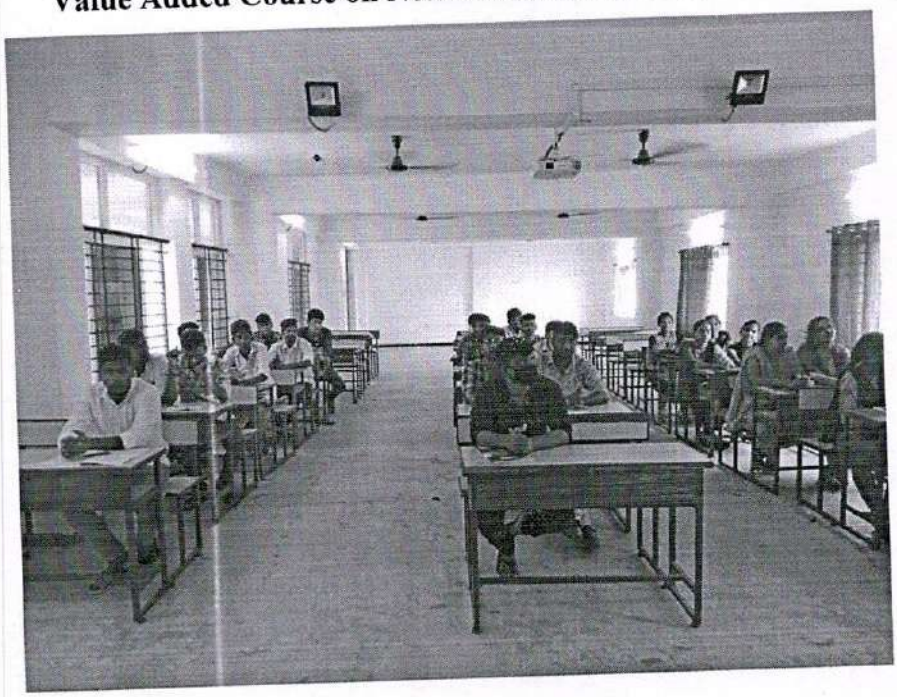
Value Added Course on Network And Protocols 2022-23



Routing principles and algorithms (RIP, OSPF, BGP),Network Address Translation (NAT) on 11.08.22

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

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01/08/2022

From

Mrs. H. Rajeswary
Assistant Professor, ECE
RAAK College of Engineering and Technology
Puducherry -110

To

The Principal
RAAK College of Engineering and Technology
Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program / Value added Course on **"22ECE03-Wireless Local Area Network"**- reg.

This is to bring to your kind notice that the Skill Development Team is planning to conduct a Program on **"22ECE03-Wireless Local area Network"** for all the Second Year ECE students from 09-08-2022 to 13-08-2022.

The main focus of this program is to provide a better exposure to our students on the Wireless Local area Network.

The syllabus and course plan structured are not listed in the Pondicherry University Curriculum and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,

Mrs. H. Rajeswary
AP/ECE

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Puducherry - 605 110

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RAAKCET/PRINCIPAL/CIR/AUG2022 **02 /08/2022**

CIRCULAR

This is to inform that the Skill Development Team is planning to conduct a value added course **"22ECE03- Wireless Local Area Network"** for all the Second Year ECE Department students from 09-08-2022 to 13-08-2022. Students are asked to utilize this opportunity and improve their skills.

PRINCIPAL

Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

1. All HoDs
2. Office

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PRINCIPAL
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING PRESENTS

VALUE ADDED COURSE ON

WIRELESS LOCAL AREA NETWORK

2022-2023

DATE: 09/08/2022 to 13/08/2022

VENUE: RAAKCET

TIME: 09 am to 04 pm

Resource Person:

Dr. N. Saranaya
Assistant Professor,
Sri Manakula Vinayagar Institute of Tech.

For Registration Contact:

Mr. Joseph Selvaraj, AP/ ECE.,
8110846875.

HOD

Mr. Ayyapasamy

RAAK College of Engineering & Technology

PRINCIPAL

Dr. S. Seenuvasamurthi

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No. 1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 009.

raakengg@mail.com

www.raakengg.com

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VALUE ADDED COURSES

2022-2023

Department of Electronics and Communication Engineering

22ECE03- Wireless Local Area Network

Syllabus

Duration: 30 hours

Course Objective:

- Understand the fundamental concepts and technologies of WLAN.
- Learn about IEEE 802.11 standards and protocols.
- Develop skills to design, implement, and manage WLANs.
- Gain knowledge of WLAN security measures and best practices.

Course Outcome:

Upon successful completion of the course students able to

- Comprehensive Understanding of WLAN Fundamentals
- Knowledge of IEEE 802.11 Standards and Protocols
- Skills in WLAN Design and Planning
- Proficiency in WLAN Implementation

Module 1: Introduction to WLAN

History and evolution of wireless communication Types of wireless networks: WLAN, WPAN, WMAN, WWAN Advantages and disadvantages of WLAN Basic WLAN concepts WLAN components: access points, clients, wireless routers WLAN topologies: ad hoc, infrastructure

Module 2: IEEE 802.11 Standards

Overview of IEEE 802.11 standards Detailed study of IEEE 802.11a/b/g/n/ac/ax Differences between various 802.11 standards Medium Access Control (MAC) layer fundamentals MAC layer frame formats MAC layer operations: DCF, PCF

Module 3: WLAN Design and Implementation

WLAN design considerations Site surveys and RF planning Capacity planning and coverage analysis Steps to implement a WLAN Configuring access points and wireless controllers Best practices for WLAN deployment

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Module 4: WLAN Security

Security challenges in WLANs Overview of WLAN security protocols: WEP, WPA, WPA2, WPA3 Encryption methods and authentication mechanisms Implementing WLAN security policies Role-based access control and network segmentation Wireless Intrusion Detection Systems (WIDS) and Wireless Intrusion Prevention Systems (WIPS)

Module 5: WLAN Management and Troubleshooting

WLAN management tools and software Monitoring and performance management Firmware updates and configuration management Common WLAN issues and their solutions Troubleshooting tools and techniques Case studies of WLAN troubleshooting

Course Designed by **Approved by** **Principal**

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RAAK College of Engineering & Technology
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CO - ATTAINMENT MAPPING

Sl. No	Register Number	Student Name	CO1	CO2	CO3	CO4
1	21TC0451	FAIZ AHMED A	✓	✓	✓	✓
2	21TC0452	HEMAMALINI J	✓	✓	✓	✓
3	21TC0454	MOHAMMED UMAR B	✓	✓	✓	✓
4	21TC0455	NIRUBAMASRI M	✓	✓	✓	✓
5	21TC0456	PREETHISH KUMAR P	✓	✓	✓	✓
6	21TC0457	RAMYA V	✓	✓	✓	✓
7	21TC0458	SARASWATHY R	✓	✓	✓	✓
8	21TC0460	SHANMUGA PRASATH C	✓	✓	✓	✓
9	21TC0461	SIVARANJANI M	✓	✓	✓	✓
10	21TC0462	SUJAY S	✓	✓	✓	✓
11	21TC0463	SUSAIRAJ S	✓	✓	✓	✓
12	21TC0465	VASANTH S	✓	✓	✓	✓
13	21TC0466	YUVASELVANATHAN B	✓	✓	✓	✓

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VALUE ADDED COURSES

2022-2023

Department of Electronics and Communication Engineering

22ECE03- Wireless Local Area Network

COURSE PLAN

S.no	Date	Hours	Time	Topic	Resource Person
DAY -1					
1	09.08.22	1,2	9 AM -11 AM	History and evolution of wireless communication	Mr.M.Kalaivanan & Dr.N.Saranya
2		3,4	11.15 AM – 1.15 PM	Types of wireless networks: WLAN, WPAN, WMAN, WWAN	Mr.M.Kalaivanan
3		5,6	2 PM -4 PM	Advantages and disadvantages of WLAN	Dr.N.Saranya
DAY 2					
4	10.08.22	7,8	9 AM -11AM	Basic WLAN concepts	
5		9,10,	11.15AM – 1.15 PM	WLAN components: access points, clients, wireless routers	Mr.M.Kalaivanan
6		11,12	2 PM - 4PM	Overview of IEEE 802.11 standard,Detailed study of IEEE 802.11a/b/g/n/ac/ax	Dr.N.Saranya
DAY -3					
7	11.08.22	13,14	9 AM -11 AM	Differences between various 802.11 standards Medium Access Control (MAC) layer fundamentals	Mr.M.Kalaivanan
8		15,16	11.15 AM – 1.15 PM	MAC layer frame formats MAC layer operations: DCF, PCF	Dr.N.Saranya
9		17,18	2 PM -4 PM	WLAN design considerationsSite surveys and RF planning	Mr.M.Kalaivanan
DAY -4					
10	12.08.22	19,20	9 AM -11 AM	Capacity planning and coverage analysisSteps to implement a WLAN	Dr.N.Saranya
11		21,22	11.15 AM – 1.15 PM	Configuring access points and wireless controllers	Mr.M.Kalaivanan

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				Best practices for AN deployment	
12		23,24	2 PM -4PM	Encryption methods and authentication mechanisms Implementing WLAN security policies	Dr.N.Saranya
DAY -5					
13	13.08.22	25,26	9AM -11AM	Role-based access control and network segmentation Wireless Intrusion Detection Systems (WIDS) and Wireless Intrusion Prevention Systems (WIPS)	Mr.M.Kalaivanan
14		27,28	11.15AM – 1.15 PM	WLAN management tools and software Monitoring and performance management Firmware updates and configuration management	Dr.N.Saranya
15		29,30	2 PM -4PM	Common WLAN issues and their solutions Troubleshooting tools and techniques Case studies of WLAN troubleshooting	Mr.M.Kalaivanan
ASESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION *					

BREAK TIME: 11.00 TO 11.15 AM **LUNCH BREAK: 1.15 PM TO 2.00 PM**

COURSE DESIGNED BY
Mrs. H. RAJESWARY

APPROVED BY
SKILL DEVELOPMENT TEAM

PRINCIPAL
Dr.S.SEENUVASAMURTHI

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VALUE ADDED COURSES
2022-2023
Department of Electronics and Communication Engineering

EVENT REPORT

Name of the Course: 22ECE03- Wireless Local Area Network

Name of the Instructors: Mr.M.Kalaivanan & Dr.N.Saranya

Year/ Branch: II/ECE

Duration of Course: 30 Hours (09-08-2022 to 13-08-2022)

Assessment Date: 20.08.2022

Post Event Summary:

The course was inaugurated on 09-08-2022 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks.

On 20.08.2022 assessment was conducted and feedbacks were collected from all the participants.

CO - Attainment:

CO1: Understand the fundamental concepts and technologies of WLAN.

CO2: Learn about IEEE 802.11 standards and protocols.

CO3: Develop skills to design, implement, and manage WLANs.

CO4: Gain knowledge of WLAN security measures and best practices.

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Value Added Courses On Wireless Local Area Network 2022-23

Differences between various 802.11 standards Medium Access Control (MAC) layer fundamentals on 11.08.22

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