

#### K.S. RANGASAMY COLLEGE OF ARTS AND SCIENCE

(Autonomous)

K.S.R Kalvi Nagar, Tiruchengode– 637 215 Namakkal Dt, Tamil Nadu, India

# Department of Electronics and Communication Value Added Course

#### Academic Year 2017-2018

#### **Contents**

S.No.	Name of the Documents	Page No.
1.	Brochure	1
2.	Circular	2
3.	Syllabus	3
4.	Work Plan	4
5.	Students Willing List	5
6.	Attendance	6
7.	Lesson Plan	9
8.	Mark List	11
9.	Certificates	12



N.A.A.C. Reaccredited and an ISO Certified Institution
Affiliated to Periyar University, Salem
Included Under 2(f) & 12(B) of UGC Act, 1956
KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India

# Value added courses offered by the College



## Academic Year 2017-2018

	Course Name		Semester		Offering Department
• Cell	l Phone Servicing		ODD/EVEN	-	Electromics and Communication
	conality Development		ODD/EVEN		Commerce and Management
	Animation		ODD / EVEN	-	Computer Science
	TLAB	-	ODD/EVEN	-	Mathematics
• Bas	ics of Biotechnology		ODD	•	Life Science
• Un	derstanding Immunity		EVEN	-	Life Science

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A. S. Rangasamy College of Arts & Science (Autonomous) TIRUCHENGODE - 637 215 Namakkal-Dt. Tamil Nadu. IND

Tiruchengode - 637 215

#### Department of Electronics and Communication

#### CIRCULAR

From The Head

Department of Electronics & Communication

To All HODs Students of all Departments

Date: 14-08-2017

#### Sub: Certificate Course- Cell Phone Servicing-reg

Our Department has planned to conduct certificate course on "Cell Phone Servicing" in this semester. Total duration of the course is 30 hours, course starts from September. Students who at all interested may enroll their names to the course coordinator. The Certificate course will be conducted after the class hours 4.15pm to 5.15pm. At the end of this course, certificate will be issued.

Students are advised to meet following staff for registration.

Mr.L.Dhatchinamurthy
Course Coordinator
Department of Electronics and Communication
KSRCAS

Course Coordinator

Head of the Department

Dr. K.M. PRABUSANKARLAL, M.Sc., M.Phi, M.E., Flag.

Associate Professor & Head,
Dept. of Electronics & Communication

K.S. Rangasamy College of Arts & Science (Autonomous)

Tiruchengade - 637 215. Namakkal Dt. T.N.

15UECCC01	CERTIFICATE COURSE: CELL PHONE	ODD/EVEN
	SERVICING	

#### Objectives:

- Learn the Basic generation and spectrum process
- Understand the operating systems and principle of handset
- Understand the basic repairing and troubleshooting the handset

Duration: 30Hrs

#### CONTENTS

#### **UNIT-I: Introduction**

(06 Hours)

Introduction to mobile phones-Generations of mobile phones- FHSS networks-GSM-Spread spectrum-CDMA-TDMA- Basic electronics components.

#### **UNIT-II: Handsets**

(06 Hours)

Handset Specific operating systems-Handset features & applications- working principle of mobile handset -Components used in mobile handsets.

#### **UNIT-III: Handset Troubleshooting**

(06 Hours)

Tools & Equipment used for repairing - Maintenance of mobile handsets-Types of Power Supply & Batteries- Boosting a Battery-Trouble shooting basics.

#### UNIT- IV: Network Problems

(06 Hours)

Network problems-Power failure (dead)-Mobile phone hardware troubleshooting (water damage, hanging, charging & keypad problems)- Handsets Assembly& Disassembly-Soldering & Desoldering -SMD rework station.

#### UNIT- V:Mobile Software

(06 Hours)

le,

Mobile software's-Data cable-Card reader-Mobile display- Remove/replace Component-Mobile phone hardware troubleshooting-Troubleshooting through circuit diagram-Transmission-Transmitter filter- Microphone- Reception- Antenna-RF power amplifier-Local oscillator-Audio IC-speaker- charger.

#### TEXT BOOK:

1 Chukky Operandu. 2014. Mobile Phones and Tablets Repairs: A Complete Guide for Beginners and Professionals. [First Edition]. Mondraim Nig Limited.

#### REFERENCE BOOKS

- 1 Sajal Kumar Das. 2013. Mobile handset Design. Wiley Publication.
- 2 Chukky Operandu. 2014. Smart Phones and Tablets Repairs: A Complete Guide for Beginners and Professionals. [First Edition]. Mondraim Nig Limited.



#### Work Plan Schedule

Faculty Name : Ms.P.Janani

Department

: B.Sc. ELEC

Class

:II UG

Subject

: CERTIFICATE COURSE: CELL

Period : ODD/EVEN 2017-2018

PHONE SERVICING (15UECCC01)

S	Unit	Tonic Tonic	No.O
No	Oilit	Topic	Hours
1		Introduction to mobile phones-Generations of mobile phones	2
2	1	FHSS networks-GSM-Spread spectrum-CDMA-TDMA	2
3	1	Basic electronics components.	2
4	- 11	Handset Specific operating systems-Handset features & applications	2
5	П	Working principle of mobile handset	2
6	- 11	Components used in mobile handsets.	2
7	III	Tools & Equipment used for repairing - Maintenance of mobile handsets	2
8	III	Types of Power Supply & Batteries	2
9	111	Boosting a Battery-Trouble shooting basics.	2
10	IV	Network problems-Power failure (dead)-Mobile phone hardware troubleshooting (water damage, hanging, charging & keypad problems)	2
11	IV	Handsets Assembly& Disassembly	2
12	IV	Soldering & Desoldering -SMD rework station.	2
13	V	Mobile software's-Data cable-Card reader-Mobile display- Remove/replace Component	2
14	V	Mobile phone hardware troubleshooting-Troubleshooting through circuit diagram- Transmission-Transmitter filter	2
15	٧	Microphone- Reception- Antenna-RF power amplifier-Local oscillator-Audio IC-speaker-charger	2
16	Others	Revision	2
10.00		Total No of Hours	32

HOD Signature with Date [Dr.K.M.PRABUSANKARLAL] Faculty Signature with Date [Ms.P.Janani]

31

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Namakkal-Dt. Tamil Nadu.

# i.RANGASAMY COLLEGE OF ARTS & SCIENCE (Autonomou

**TIRUCHENGODE - 637 215** 

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION CERTIFICATE COURSE -Students Name List

Academic Year 2017-2018

Course Code: 15UECCC01 Batch: 2016-2019

Course Name: Cell Phone Servicing

S. No	Register No	Student Name	STUDENTS SIGNATURE
1	16UBA010	BALARAMAN K	Balance
2	16UBA042	KARTHI G	Kank
3	16UBA094	TAMIL ARASAN G	Tame
4	16UCO011	GANESH V	Galosh-
5	16UCO014	KABILAN G	
6	16UCO035	RAGUL P	Breezel
7	16UMA015	DEEPAK R	
8	16UMA046	KALAI SELVI M	Derof
9	16UMA075	PRAGADEESH S	Calai 32
10	16UMA119	SRIRAM R	Silva.
11	16UMB012	HARIHARAN M	haviheran
12	16UPH048	NAVEEN KUMAR S	(Nanes.
13	16UPH059	RAJESH KUMAR B	Revision
14	16UPH063	SANTHOSH KUMAR V	Som knen.
15	16UTA002	BHARATHI V	brownth.
16	16UTA030	DHARANI E	Oharts -
17	16UTA035	VINITHA S	vinothy:
18	16UTF015	KAMILA JOSE J	2086
		MEIYALAGAN R	heilalugae
20		PRABHAKARAN S	Prable

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Namakkal-Dt. Tanih Natis

Br. K.M. PRABUSANKARLAL, M.Sc., M.Flu., M.Sc., M.Flu., M.Sc., M.Flu., M.Sc., M.Flu., M.Sc., M.Flu., M.Sc., M.Flu., M.Sc., M.Sc.,

#### K.S.RANGASAMY COLLEGE OF ARTS & SCIENCE (Autonomous)

**TIRUCHENGODE - 637 215** 

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION CERTIFICATE COURSE NAME LIST

Academic Year 2017-2018

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch: 2016-2019

S. No	Register No	Student Name	14	15/6	16	19	21	20	28	30	50	G
1	16UBA010	BALARAMAN K	R	1	1	1	1	a	1	1	a	1
2	16UBA042	KARTHI G	X	1	1	a	1		1	a	/	1
3	16UBA094	TAMIL ARASAN G	1	a	/	1	1	a	1	1	/	/
4	16UCO011	GANESH V	1	1	1	1	a	1	1	a	1	/
5	16UCO014	KABILAN G	/	1	1	1	a	1	1	/	1	1
6	16UCO035	RAGUL P	/	1	a	1	1	1	1	1	/	1
7	16UMA015	DEEPAK R	/	1	1	á	1	1	a	1	1	1
8	16UMA046	KALAI SELVI M	1	a	1	/	1	a	1	1	1	1
9	16UMA075	PRAGADEESH S	1	/	1	a	(	1	/	1	1	/
10	16UMA119	SRIRAM R	1	/	1	1	1	1	1	1	1	1
11	16UMB012	HARIHARAN M	1	/	1	1	1	1	1	1	1	1
12	16UPH048	NAVEEN KUMAR S	1	1	1	/	1	1	1	/	1	1
13	16UPH059	RAJESH KUMAR B	1	1	1	/	1	/	/	1	1	-
14	16UPH063	SANTHOSH KUMAR V	1	1	1	/		1	/	1	1	1
15	16UTA002	BHARATHI V	1	1	1	1	a	1	1	1	1	1
16	16UTA030	DHARANI E	1	a	/	1	1	a	1	1	1	1
17	16UTA035	VINITHA S	a	/	/	1	a	1	P	a	1	1
18	16UTF015	KAMILA JOSE J	1	a	1	1	1	1	a	1	1	1
19	16UTF022	MEIYALAGAN R	a	a	a	1	1	a	1	1	/	/
20	16UTF028	PRABHAKARAN S	1	1	1	1	/	1	1	OX.	1	1

Staff Signature 19 BBP PEBPBP

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## K.S.RANGASAMY COLLEGE OF ARTS & SCIENCE (Autonomous)

**TIRUCHENGODE - 637 215** 

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION CERTIFICATE COURSE NAME LIST

Academic Year 2017-2018

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch: 2016-2019

S. No	Register No		7/0	12/0	14		19	OF HERICAGO AND	20	26	28	2
1	16UBA010	BALARAMAN K	1	a	17	1	1	1	a	10	a	1
2	16UBA042	KARTHI G	1	1	a	1	1	1	9	7	1	1
3	16UBA094	TAMIL ARASAN G	1	1	1	a	,	1	1	9	-1-	1
4	16UCO011	GANESH V	1	1	a	1	1	1	1	4	1	-
5	16UCO014	KABILAN G	1	1	1	1	1	a	,		,	1
6	16UCO035	RAGUL P	a	1	1	1	,		1	1	/	/
7	16UMA015	DEEPAK R	1	,	1	a	1	a	,	-	-	1
8	16UMA046	KALAI SELVI M	1	a	1	u	1	1	1	-		_/
9	16UMA075	PRAGADEESH S	1	1	1	/	1	a	u	/	/	/
	16UMA119		1	,	1	-	,	4	1	/	1	_/
		HARIHARAN M	1	1	1	1	-	1	/	/	1	
12		NAVEEN KUMAR S	1	,	1	1	1	,	/	/	/	1
13		RAJESH KUMAR B	1	1	1	2	,	-		7	/	1
14	ALL SERVICE STREET, ST	SANTHOSH KUMAR V	1	1	1	1	,	/	-	1	/	
15	at the second of the second	BHARATHI V	a	1	1	_/_	1	1	/	1	/	
16		DHARANI E	1	-	1	1	,	q	1	/	1	
17		VINITHA S	a	a	,	,	00	a	1	/	,	1
18		KAMILA JOSE J	1	1	1	9	a	1	-	0	1	1
19		MEIYALAGAN R	a	+	,	1	7	60	-	9	0	1
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# K.S.RANGASAMY COLLEGE OF ARTS & SCIENCE (Autonomous)

TIRUCHENGODE - 637 215

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION CERTIFICATE COURSE NAME LIST

Academic Year 2017-2018

Course Code: 15UECCC01 Batch : 2016-2019

Course Name: Cell Phone Servicing

S. No	Register No	Student Name	LE S	3, 6	4, 8	3/0	4	4, 1	7 0	8, 23	3 22	22	Bo	2.1
1	16UBA010	BALARAMAN K		1	1000	7	1	1	11	17	17	14	30	3/
	16UBA042	KARTHI G	1	1	10		1	1	1	1	a	1	1	,
	16UBA094	TAMIL ARASAN G	-	-	4	9	1	1 1	17	a	1	1	1	1
	16UCO011	GANESH V	1	+	4/	1	1	a	1	1	1	1	-	-
	16UCO014	KABILAN G	1	1	/	1	1	11	1	1	1	1	0	
	16UCO035	RAGUL P	1	1	1	1	1	a	1	1	1	1	a	
7 ]		DEEPAK R	1	1/	1	1	1	a	1	1	1	1	6	,
	16UMA046	KALAI SELVI M	1	a	1	1	1	1	1	1	1	1	1	
9 1	16UMA075	PRAGADEESH S	1	1/	1/	1	1	1	1	a	1	1	1	( )
10 1	6UMA119	SRIRAM R	1	1	1	1	1	1	1	1	,	1	1	-
11 1	6UMB012 1	HARIHARAN M		1	11	1	1	a	1	1	,	,	0	-
	6UPH048	NAVEEN KUMAR S	a	1	1,	1	/	1	1	a	1	1	1	whento
	6UPH059   F	RAJESH KUMAR B	1	a	1	1	1	1	1	a	1	1	-	-
	6UPH063  S	SANTHOSH KUMAR V	1	1	1/	1	1	1	1	1	1	1	1	a
	6UTA002   B	BHARATHI V	a	a	1/	ar	Q	1	1	1	1	1	-	ur.
	6UTA030 D	DHARANI E	1	9.	1	1	1	a	1	1	1	1	-4-	-
	SUTA035 V	/INITHA S	1	/	9	1	9	1	1	1	1	1	4	4
8 16	SUTF015 K	AMILA JOSE J	9	/	1	1	1	a	1	1	,	1	4	-
	UTF022 M	MEIYALAGAN R	9	/	a	1	/	1	a	1	1	1	0	-
0 16	UTF028 PI	RABHAKARAN S	a	/	1	1	1	1	1	1	1 0	7		-
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· Pl	anned	Topics Toward.	Exc	ecuted	Sign	nature	CI
Date	Hour	Topics Covered	Date	Hour	Faculty	нов	
14/9	H-15-5-15	Introduction to mobile phones	164/9	4.5.5.8	29	1	
15/9	4.15-5.15	Generation of mobil phones	15/9	415-515	Rg.	1 Va	
18/9	4-15-5-13		5/9	4.15-5.15	Pg	00	
19/9	4.5-5.15	COMP - TOMP	1919	415-515	Fg	<u> </u>	
17/9	4.15-5.15	Basic electronic components	2/9	4.15-5.15	Pg		
22/9	4.15-5.15	Basic electronii componento	22/9	415-5.5	Pa		
8/9	4.18-5.15	Handset epecífic opperating system	28/9	4.15-5.15	Rg		
30/9	4.15-5.15	pronderet featives application	30/9	4-15-5-15	B		
5/10	4.15-5115	marking principles	5/10	4-15-515	Pg	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
5/10	4 15-5.15	mebile hanset	6/10	415-515	Pg.	Xa	2
7/10	4.15-5-15	amponents used	7/10	4-15-55	Rq		
2/10	4.15-515	mosili hardelle	19/16	4"15 5"15	Rg	-	
14/10	4.15-45'15	Tools & confirment used	14/10	4-15-5-13	Pg .	1	
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5/10	4.15-5-15	of mabile touckets	15/10	415-515	B	Apparent of the second	
19/10	415-515	Typos of power supply	19/10	415-5-15	Rg		
20/10	4.15-4.15	Batteries	20/10	4 15-5 15	Rg	otto Cyroniana na ananana	
22/10	4.15-5.15	gooting a battery	22/10	415-515	Ag (	1 26	1
6/10	415-5-15	Trouble shooting basic	26100	416-518	Be	) 28	1200
8/10	415-515	refuert problem ponus	28/10	4.15-5.15	B/	Province of the second	
		tailor (ded ) - nobil					
		phone hardward fromble		N			
		shooting water damage, hangue					
		chargine,				AMERICAN AME	
2/1	475-5-4	& keypad problems	2/1	415-515	<u>G</u>	1	
3/1	H15- 5-15		3/1	415-515	fg/		
4/1	415-5.15	iois asembly.	4/1	4-15-5-5	Pg		
8/1	4.18-5.19	soldering & parandering	9/1	4-15-5-15	<u>lg</u>	1	5
9/1	4.15-2.18	smp revient station	9/1	415-515	PRACIPAL	(100	/
11/1	A . 15-515	mobile softwares - peta	MIK	HATTERUCH	ny Regilege o	Ans & Sch	1

TIRUCHENGODE - 637 215
Namakkal-Dt. Tamil Nada: INDIA

LASS: SUBJECT: CERTIFICATE LOVRIE: LELE PHONE SERVI

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Pl	lanned		Ex	ecuted	Sig	nature
Date	Hour	Topics Covered	Date	Hour	Faculty	ног
		Oble - nord readly -mobile	11/1	H 15 75 15	By.	7
	-	display - Romoro preplau				11
17/1	4118-516	lamponent	17/	4.18-5.15	By	LV
3/1	4.15-5.15	mobile phone hardware trouble	18//	4115-515	6	
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01,	4.15 515	The state of the s	23/1	H 115 " B 115	Rg	1
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Namakkal-Dt, Tamil Nadu, INDIA

## S.RANGASAMY COLLEGE OF ARTS & SCIENCE (Autonomous

**TIRUCHENGODE - 637 215** 

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION CERTIFICATE COURSE MARK LIST

Academic Year 2017-2018

Course Code: 15UECCC01 Batch: 2016-2019

Course Name: Cell Phone Servicing

Max Marks: 100

di Marina			Max Marks: 100									
S. No	Register No	Student Name	ASS 1 (10)	ASS 2 (10)	Test (75)	Att %	Att (5)	Total				
1	16UBA010	BALARAMAN K	8	9	72	91	5	94				
2	16UBA042	KARTHI G	6	8	73	93	5	92				
3	16UBA094	TAMIL ARASAN G	7	8	70	94	5					
4	16UCO011	GANESH V	8	7	72	95	5	90				
5	16UCO014	KABILAN G	8	7	70	96	5	92				
6	16UCO035	RAGUL P	8	7	74	95	5	90				
7	16UMA015	DEEPAK R	8	8	73	95	5	94				
8	16UMA046	KALAI SELVI M	7	8	70	94	5	94				
9		PRAGADEESH S	9	9	72	97	5	90				
10	16UMA119	SRIRAM R	9	8	71	98	5	95				
11	16UMB012	HARIHARAN M	8	9	73	96	5	93				
12		NAVEEN KUMAR S	6	8	74	97	5	95				
13		RAJESH KUMAR B	8	9	72	98	5	93				
14		SANTHOSH KUMAR V	7	7	71	95	5	94				
15	ALTO SALOCATOR (ALLCOMO - ALCOMO / C	BHARATHI V	9	6	70	94	5	90				
16	16UTA030	DHARANI E	8	8	70	93		90				
17	The second secon	VINITHA S	6	9	70	93	5	. 21				
18		KAMILA JOSE J	7	7	74		5	90				
19		MEIYALAGAN R	8	7	73	92	5	93				
_		PRABHAKARAN S	8	7	72	90	5	93				

Staff Signature (Ms.P.Janani)

(Dr.K.M.Prabusankarlal)

Dr. K.M. PRABUSANKARLAL, M.Sc., M.Phil, M.E., Pill. Associate Prefesser & Head, Dept. of Electronics & Communication K.S. Rangasamy College of Arts & Science (Autonomous)

Tiruchengode - 637 215. Namakkal Dt. T.N.

PRINCIPAL

(Dr.V.Radhakrishnan)

Propertial. d. S. Rangasian a July 3 of Arts & Science (Zutononous)

TIRUCHENGODE - 637 215 Namakkal-Dt. Tamil Nadu. INC.

PRINCIPAL K. S. Rangasamy College of Arts & Science

TIRUCHENGODE - 637 215 Namakkal-Dt, Tamii Nadu, INDIA

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NAAC Reaccredited and an ISO Certified Institution affiliated to Periyar University, Salem Included Under 2(f) & 12(B) of UGC Act, 1956

KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



### Certificate

This is to certify that <u>BALARAMAN K, (16UBA010)</u> of <u>II BBA</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
of Art Course Coordinator

ODE - 637 215 Imil Nadu, JNDIA

Vamakkal-Dt.

Lin

Dr. K.M.Prabusankarlal Head of the Department h\_2

**Dr.V.Radhakrishnan**Principal



NAAC Reaccredited and an ISO Certified Institution affiliated to Periyar University, Salem Included Under 2(f) & 12(B) of UGC Act, 1956

KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



#### Certificate

This is to certify that <u>KARTHI G, (16UBA042)</u> of <u>II BBA</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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### Certificate

This is to certify that <u>TAMIL ARASAN G</u>, (16UBA094) of <u>II BBA</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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TIRUCHEN GODE - 637 215

Namakkal-Di Tamil Nadu. INDIA



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### Certificate

This is to certify that <u>GANESH V</u>, (16UCO011) of <u>II B.COM</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy PRINCIPA Course Coordinator

Dr. K.M.Prabusankarlal Head of the Department

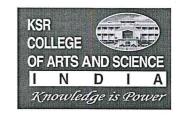
Dr. V. Radhakrishnan Principal

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### Certificate

This is to certify that <u>KABILAN G</u>, (16UCO014) of <u>II B.COM</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy

INCIPAICourse Coordinator

College of Arts & Science

Namakkal-Dt Tamil Nadu, INDIA

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**Dr. K.M.Prabusankarlal** Head of the Department

**Dr.V.Radhakrishnan**Principal

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### Certificate

This is to certify that <u>RAGUL P, (16UCO035)</u> of <u>II B.COM</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy

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ODE - 637 215

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal



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KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



### Certificate

This is to certify that <u>DEEPAK R</u>, (16UMA015) of <u>II B.Sc.</u>, <u>MAT</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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This is to certify that KALAI SELVI M, (16UMA046) of II B.Sc., MAT has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy Course Coordinator

Dr. K.M.Prabusankarlal Head of the Department

Dr. V. Radhakrishnan Principal

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### Certificate

This is to certify that <u>PRAGADEESH S</u>, (16UMA075) of <u>II B.Sc.</u>, <u>MAT</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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### Certificate

This is to certify that <u>SRIRAM R</u>, (16UMA119) of <u>II B.Sc.</u>, <u>MAT</u> has completed a Certificate Course in <u>Cell Phone Servicing</u> during the academic year 2017-2018, <u>ODD/EVEN</u> semester conducted by the Department of Electronics and Communication, <u>K.S.Rangasamy College of Arts</u> and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



### Certificate

This is to certify that <u>HARIHARAN M, (16UMB012)</u> of <u>II B.Sc., MB</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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### Certificate

This is to certify that <u>NAVEEN KUMAR S, (16UPH048)</u> of <u>II B.Sc., PHY</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

Dr. K.M.Prabusankarlal Head of the Department **Dr.V.Radhakrishnan**Principal

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Namakkal Dt. Tamil Nadu. INDIA

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KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



### Certificate

This is to certify that <u>RAJESH KUMAR B</u>, (16UPH059) of <u>II B.Sc.</u>, <u>PHY</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr. V. Radhakrishnan**Principal

Mr.L.DI
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S. Rangasamy College of Arts & Science
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KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



### Certificate

This is to certify that <u>SANTHOSH KUMAR V, (16UPH063)</u> of <u>II B.Sc., PHY</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

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amakkal-Dt. Tamil Nadu, INDIA

Dr. K.M.Prabusankarlal

Head of the Department

**Dr.V.Radhakrishnan**Principal

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KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



### Certificate

This is to certify that <u>BHARATHI V, (16UTA002)</u> of <u>II BA TAM</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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### Certificate

This is to certify that <u>DHARANI E, (16UTA030)</u> of <u>II BA TAM</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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### Certificate

This is to certify that <u>VINITHA S, (16UTA035)</u> of <u>II BA TAM</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



### Certificate

This is to certify that <u>KAMILA JOSE J, (16UTF015)</u> of <u>II B.Sc., TFD</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
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**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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### Certificate

This is to certify that <u>MEIYALAGAN R, (16UTF022)</u> of <u>II B.Sc., TFD</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy

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**Dr. K.M.Prabusankarlal**Head of the Department



**Dr.V.Radhakrishnan**Principal

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KSR Kalvi Nagar; Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India



### Certificate

This is to certify that <u>PRABHAKARAN S, (16UTF028)</u> of <u>II B.Sc., TFD</u> has completed a Certificate Course in Cell Phone Servicing during the academic year 2017-2018, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy
Course Coordinator

**Dr. K.M.Prabusankarlal**Head of the Department

**Dr.V.Radhakrishnan**Principal

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Nadu, INDIA