

#### 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 2016-2017

#### **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



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Affiliated to Periyar University, Salem
Included Under 2(f) & 12(D) of UGC Act, 1956
KSR Kalvi Nagar, Tiruchengode - 637 215; Namakkal Dist, Tamil Nadu, India

# Value added courses offered by the College



# Academic Year 2016-2017

	Course Name		Semester		Offering Department
			t thinks		Contract of the same
	Cell Phone Servicing		ODD/EVEN		Electronics and Communication
•	Personality Development	-	ODD/EVEN	4	Commerce and Management
	3D Animation	-	ODD/EVEN		Computer Science
	MATLAB		ODD/EVEN		Mathematics
	Basics of Biotechnology	-	ODD		Life Science
•	Understanding Immunity				
	and Vaccination	-	EVEN		Life Science

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K. S. Rangasamy College of Arts & Science
(Autonomous)
TIRUCHENGODE - 637 245
Namakkal-Dt, Tamii Nadu, if

Tiruchengode - 637 215

Department of Electronics and Communication

#### CIRCULAR

From

The Head

Department of Electronics & Communication

All HODs

Students of all Departments

Date: 18-08-2016

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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 are 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** 

K.M.PRABUSANKARLAL M.Sc.M.Phil.

K.S. Raffglistiff College of Arthur Lation (K.S. Raffglistiff Coll TIRUCHENGODE - 637 24 Namakkal-Dt. Tamil Nacii. Iv15UECCC01 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 Hour

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)

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.

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#### Work Plan Schedule

Faculty Name : Ms.A.Vimala

Class

:II UG

G.

Department : B.Sc. ELEC

Subject : CERTIFICAT

: CERTIFICATE COURSE: CELL PHONE SERVICING (15UECCC01)

Peri	od	: ODD/EVEN 2016-2017 PHONE SERVICING (15UEC	CC01
S No	Unit		No O Hours
1	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		Working principle of mobile handset	2
6	11	Components used in mobile handsets.	2
7	111	Tools & Equipment used for repairing - Maintenance of mobile handsets	2
8		Types of Power Supply & Batteries	2
9		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
		Total No of Hours	32

HOD Signature
with Date
[Mr.K.M.PRABUSANKARLAL]

A. S. Rangasamy College of Arts & Science

(Autonomous)
TIRUCHENGODE - 637 215
Namakkal-Dt, Tamil Nadu, INDIA

Faculty
Signature
with Date
[Ms.A. Vimala]

12.

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

**TIRUCHENGODE - 637 215** 

#### **DEPARTMENT OF ELECTRONICS AND COMMUNICATION** CERTIFICATE COURSE NAME LIST Academic Year 2016-2017

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

15 40

Batch: 2015-2018

S. No	Register No	Student Name	STUDENTS SIGNATURE
1	15UEN034	NAVEEN KUMAR P	M. heen Kilon
2	15UEN050	SRI MATHI V	Someth.
3	15UCC017	DEVANATHAM K	pellam x
4	15UCC033	GUNA R	Corune R
5	15UCC056	LOGESH N	I had.
6	15UCC070	MONICA P	meonlo
7	15UCC150	VETRIVEL P	Votrivera
8	15UBC034	SANGAMESH KUMARK	Same mand
9	15UCH003	ARUN KUMAR M	Andreway
10	15UCH047	VENKATASAMY K	rebrief
11	15UCH048	VENKATESH M	Ventockin
12	15UMA061	KAVIYA S	enteloy
13	15UMA096	PAVITHRA P	1 sews
14	15UMA073	MANIKANDAN S	Alreal Konder
15	15UMB017	KAVIYA P	(bb)
16	15UMB032	ROHINI B	Danland.
17	15UBA008	ASHWIN V	Aval
18	15UBA036	KANNAN V	Kup
19	15UBA099	VINOTH S	Whith. S
20	15UBT052	MADHAN KUMAR S	Mahkulari
21	15UBT067	SANGEETHA N	Some

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A. S. Rangasamy Gollege of Arts & Science TIRUCHENGODE - 637 215 Namakkai-Dt, Tamii Nadu, INDIA

K.M. PRABUSANKARLAL. M.Sc..M.Phil. HOD. Department of Electronics & Communication K.S. Rangasamy College of Arts & Science
TIRUCHENGODE - 637 215

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

**TIRUCHENGODE - 637 215** 

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

Academic Year 2016-2017

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch: 2015-2018

S. No	Register No	Student Name	67	8 /9	96	13	为	15/9	16/9	176	19	20/9	12/9
1	15UEN034	NAVEEN KUMAR P	1	1	1	1	1	1	1	1	1	1	1
2	15UEN050	SRI MATHI V	1	q	1	1	1	1	1	1	1	1	1
3	15UCC017	DEVANATHAM K	1	1	1	1	a	1	1	1	1	,	1
4	15UCC033	GUNA R	1	1	1	1	1	,	1	1	1	1	1
5	15UCC056	LOGESH N	1	1	1	1	1	1	1	1	1	1	1
6	15UCC070	MONICA P	1	1	1	1	1	1	1	1	1	1	1
7	15UCC150	VETRIVEL P	1	1	1	1	1	1	1	1	1	1	1
8	15UBC034	SANGAMESH KUMARK	1	1	1	1	1	1	1	1	1	1	1
9	15UCH003	ARUN KUMAR M	1	1	a	1	1	1	1	1	1	1	1
10	15UCH047	VENKATASAMY K	1	1	1	1	1	1	1	1	1	1	1
11	15UCH048	VENKATESH M	1	1	1	1	1	1	1	1	1	1	1
12	15UMA061	KAVIYA S	1	1	1	1	1	al	a	/	1	1	1
13	15UMA096	PAVITHRA P	1	1	1	1	1	1	1	1	1	1	1
14	15UMA073	MANIKANDAN S	1	1	1	1	1	1	1	1	1	1	1
15	15UMB017	KAVIYA P	1	1	1	1	1	1	1	1	1	1	1
16	15UMB032	ROHINI B	1	1	1	9	1	1	1	1	1	1	1
17	15UBA008	ASHWIN V	1	1	1	1	1	1	1	1	1	1	1
18	15UBA036	KANNAN V	1	1	1	1	1	1	1	1	1	1	1
19	15UBA099	VINOTH S	1	a	1	1	1	1	1	1	1	1	1
20	15UBT052	MADHAN KUMAR S	1	1	1	1	1	1	1	1	1	1	1
21	15UBT067	SANGEETHA N	1	1	1	1	1	1	1	1	1	1	1

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**TIRUCHENGODE - 637 215** 

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

Academic Year 2016-2017

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch: 2015-2018

S. No	Register No	Student Name	23/	26/9	23	28	29	30/4	3/10	4/10	10	13/10	14/10
1	15UEN034	NAVEEN KUMAR P	7	1	a	1	1	1	9	1	1	1	1.
2	15UEN050	SRI MATHI V	1	1	1	1	1	1	1	1	1	a	1
3	15UCC017	DEVANATHAM K	1	1	1	1	1	a	1	1	1	1	1
4	15UCC033	GUNA R	1	1	1	1	1	1	1	1	1	1	1
5	15UCC056	LOGESH N	/	1	1	1	/	1	1	1	1	1	1
6	15UCC070	MONICA P	1	1	1	1	1	1	1	1	1	1	1
7	15UCC150	VETRIVEL P	1	a	1	1	1	1	1	1	1	1	1
8	15UBC034	SANGAMESH KUMARK	1	1	a	1	1	/	1	1	1	1	1
9	15UCH003	ARUN KUMAR M	1	1	1	1	1	1	1	1	1	1	1
10	15UCH047	VENKATASAMY K	1	1	1	1	1	1	1	1	1	1	1
11	15UCH048	VENKATESH M	1	/	1	1	1	1	1	1	1	1	1
12	15UMA061	KAVIYA S	1	1	1	1	1	1	1	1	1	1	1
13	15UMA096	PAVITHRA P	1	1	1	1	1	1	1	1	1	/	1
14	15UMA073	MANIKANDAN S	1	1	1	1	1	1	1	1	1	1	1
15	15UMB017	KAVIYA P	1	1	1	1	1	1	1	1	1	1	1
16	15UMB032	ROHINI B	a	1	1	1	a	1	1	1	1	1	1
17	15UBA008	ASHWIN V	1	1	1	1	1	1	1	1	1	1	1
18	15UBA036-	KANNAN V	1	1	1	1	1	1	1	1	1	1	a
19	15UBA099	VINOTH S	1	1	1	1	1	/	1	1	1	1	1
20	15UBT052	MADHAN KUMAR S	1	1	1	1	1	1	1	1	1	1	1
21	15UBT067	SANGEETHA N	1	1	1	1	1	1	1	1	1	1	1

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

**TIRUCHENGODE - 637 215** 

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION CERTIFICATE COURSE NAME LIST

Academic Year 2016-2017

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch: 2015-2018

S. No	Register No	Student Name	15/0	03/2	05/12	06	07	68	1/2	1/2	15/2.		
1	15UEN034	NAVEEN KUMAR P	1	1	1	1	1	1	1	1	a		_
2	15UEN050	SRI MATHI V	1	1	1	/	1	1	1	1	/	1	
3	15UCC017	DEVANATHAM K	1	1	1	1	1	1	1	1	/		
4	15UCC033	GUNA R	a	1	1	1	1	1	1	1	/	5	
5	15UCC056	LOGESH N	1	1	1	1	1	1	1	1	/	_	-
6	15UCC070	MONICA P	1	1	1	/	1	1	1	a	/		-
7	15UCC150	VETRIVEL P	1	/	1	1	1	1	1	1	/		-
8	15UBC034	SANGAMESH KUMARK	1	1	1	/	1	1	1	1	1		
9	15UCH003	ARUN KUMAR M	1	1	1	1	/	1	1	1	1	7	-
10	15UCH047	VENKATASAMY K	1	1	1	1	1	1	1	1	1	_	-
11	15UCH048	VENKATESH M	1	1	1	1	1	1	1	1	/		-
12	15UMA061	KAVIYA S	1	1	1	1	1	1	1	1	/		-
13	15UMA096	PAVITHRA P	1	1	1	1	1	1	1	/	/		-
14	15UMA073	MANIKANDAN S	1	1	1	1	a	1	1	1	1		
15	15UMB017	KAVIYA P	1	1	1	1	1	1	/	1	1		+
16	15UMB032	ROHINI B	1	1	1	/	1	1	1	1	/		-
17	15UBA008	ASHWIN V	1	1	1	/	1	1	1	1	1		+
18	15UBA036	KANNAN V	1	1	1	1	1	1	1	1	/	-	+
19	15UBA099	VINOTH S	1	1	1	1	1	1	/	1	/		+
20	15UBT052	MADHAN KUMAR S	1	1	1	1	/	1	1	/	/		+
21	15UBT067	SANGEETHA N	1	1	1	/	/	1	/	16	1		

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Arts & Science

(Autonomous)

TIRUCHENGODE 637 215

Namakkal-Dt. Tamii Nadu. INDIA.

2016-2017

CLASS: II-Ubs (15UECCCOI) SUBJECT: Les tificate 100750: all phone Servicing. Planned Executed Signature **Topics Covered** Date Hour Date Hour Faculty HOD 7/9 4.15-5.15 Introduction to mobile Phones 719 1.15+5.15 Gunerations of mobile Phones 219 019 919 4.15-515 FHSS Notworks- (73MS Recods poiltum 9/9 12/9 4.15.15.15. 12/9 4.15-5.15 Basic olochonics components 14/2 12/9 15/9 olastronics componente 15/9 1619 Hand got Specific Operating Systems 1619 17/9 feature & Application 19/9 19/9 2019 22/9 22/9 23/9 4.15-5.15 2379 4.15-5.15 Tools & Equipment used for repring 26/9 26 19 27/9 Maintonano of mobile handeets 2019 Power Supply 18/9 29/9 29/9 1.15-5.15 CAD 30/9 Battery 30/9 3/10 3 hooting basics 2/10 4/10 4/10 4.15-515 affure (dead) - mobile phone and ware trouble shooting clamage, hanging, chearing 6/10. 1-15-515 4-15-5-15 Dis orssem 1-15-5154 15/10 15/10 4.15-5-15 03/12 1270 (1) Ork 05/12 0.5/12 d.15-5K Mobile Software's cand reader-mobile display 06/12 4-15-5-15 Remove | Rindow 10 monnont 06/12 4-15-505

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

Planned		CISUECCCOI) SUBJE	E	xecuted	Sig	Signature		
Date	Hour	Topics Covered	Date	Hour	Faculty	HOD		
7/12	4.15-2.13	Mobile Phone handware trooble	7/12	4.15-5.1	sdo	1		
	ļi	Shooting - trouble shooting through			- Shares	US		
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# S.RANGASAMY COLLEGE OF ARTS & SCIENCE (Autonomous

**TIRUCHENGODE - 637 215** 

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

Academic Year 2016-2017

Course Code: 15UECCC01 Batch: 2015-2018

Course Name: Cell Phone Servicing

May Market 100

ALEGANIE	11.2013-2016	Max Marks: 100									
S. No	Register No	Student Name	ASS 1 (10)	ASS 2 (10)	Test (75)	Att %	Att (5)	Total (100)			
1	15UEN034	NAVEEN KUMAR P	8	6	70	92	5	89			
2	15UEN050	SRI MATHI V	7	9	72	90	5	93			
3	15UCC017	DEVANATHAM K	8	8	74	94	5				
4	15UCC033	GUNA R	7	8	70	93	5	95			
5	15UCC056	LOGESH N	6	9	71	96	5	90			
6	15UCC070	MONICA P	7	8	72	95	5	92			
7	15UCC150	VETRIVEL P	8	7	74	94	5	94			
8	15UBC034	SANGAMESH KUMARK	7	7	73	92	5	92			
9	15UCH003	ARUN KUMAR M	8	9	70	96	5	92			
10	15UCH047	VENKATASAMY K	7	8	72	92	5	92			
11	15UCH048	VENKATESH M	8	9	72	93	5	94			
12	15UMA061	KAVIYA S	8	7	74	94	5	94			
13	15UMA096	PAVITHRA P	8	8	70	95	5				
14	15UMA073	MANIKANDAN S	7	7	70	96		91			
15		KAVIYA P	7	8	70	92	5	89			
16	15UMB032	ROHINI B	6	8	68		5	90			
17	15UBA008	ASHWIN V	8	9	72	94	5	87			
18	15UBA036	KANNAN V	7	8	71	92	5	94			
19	15UBA099	VINOTH S	8	6	73		5	91			
20		MADHAN KUMAR S	8	8	72	96	5	92			
21		SANGEETHA N	8	8	70	91	5	93			

Staff Signature (Mrs.A.Vimala)

(Mr.K.M.Prabusankarlal)

PRINCIPAL Arts & Science (Dr.V.Radhakrishnan) TIPLICATE NO.

Samuel Burney

K.M. PRABUSANKAK W. W

HOD, Department of Electronics a Communication

K.S. Rangasamy College of Arts & Science TIRUCHENGODE - 637 215.

PRINCIPAL

A. S. Rangasamy College of Arts & Science

(Autonomous)

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

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 NAVEEN KUMAR P, 15UEN034 of II BA ENGLISH has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr. E. Dhatchinamurthy

PRINCIPALISE Coordinator

K. S. Rangasamy College of Arts & Science

(Autonomous)
TIRUCHENGODE - 637 215

Namakkal-Dt, Tamil Nadu, INDIA

Mr. K.M.Prabusankarlal Head of the Department

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



### Certificate

This is to certify that SRI MATHI V, 15UEN050 of II BA ENGLISH has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, 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

Course Coordinator

K. S. Rangasamy College of Arts & Science

Autonomous)
TIRUGHENGODE - 637 215

Namakkal-Dt, Tamil Nadu, INDIA

Mr. K.M.Prabusankarlal Head of the Department

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 **DEVANATHAM K**, 15UCC017 of **IIB.COM CA** has completed a Certificate Course in **Cell Phone Servicing** during the academic year 2016-2017, **ODD/EVEN** semester conducted by the Department of Electronics and Communication, **K.S.Rangasamy** College of Arts and Science (Autonomous), Tiruchengode-15

Mr.E. Dhatchinamurthy

PRINCOurse Coordinator

K. S. Rangasamy College of Arts & Science

(Autonomous)

TIRUCHENGODE = 637 215 Namakkal-Dt. Tamil Nadu, INDIA Mr. K.M.Prabusankarlal Head of the Department

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 GUNA R, 15UCC033 of IIB.COM CA has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

A. S. Rangas any College Of And Utatchinamu.

HENGODE - 637 215 kal-Dt. Tamii Nadu. INDIA

Mr. K.M.Prabusankarlal Head of the Department

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 LOGESH N, 15UCC056 of IIB.COM CA has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

PRINCOURSE Coordinator

K. S. Rangasamy College of An Societa at Colleg

(Autonomous) TIRUCHENGODE - 637 215

Namakkal-Dt. Tamil Nadu. INDIA

Mr. K.M.Prabusankarlal Head of the Department

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



### Certificate

This is to certify that MONICA P, 15UCC070 of IIB.COM CA has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr. K.M.Prabusankarlal Head of the Department

Dr.V.Radhakrishnan Principal

NCIPAL Course Coordinator En Tamil Nadu. INDIA NGODE-631

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



# Certificate

This is to certify that VETRIVEL P, 15UCC150 of IIB.COM CA has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Course Coordinator HENGODE 637

TENDONE Nadu. INDIA

Mr. K.M.Prabusankarlal Head of the Department

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



# Certificate

This is to certify that SANGAMESH KUMARK, 15UBC034 of IIB.COM CA has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.E.Dhaichinamurthy Course Coordinator

Mr. K.M.Prabusankarlal Head of the Department

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



# Certificate

This is to certify that ARUN KUMAR M, 15UCH003 of IIB.Sc., CHE has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Arts & Sicourse Coordinator

Mr. K.M.Prabusankarlal Head of the Department

Dr. V. Radhakrishnan Principal

Jahn Nadn. INDIA

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



# Certificate

This is to certify that VENKATASAMY K, 15UCH047 of IIB.Sc., CHE has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr. E. Dhatchinamurthy
Course Coordinator

Mr. 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 VENKATESH M, 15UCH048 of IIB.Sc., CHE has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr. E. Dhatchinamurthy
Course Coordinator

Mr. 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 KAVIYA S, 15UMA061 of IIB.Sc., MAT has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Course Coordinator

Mr. 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 PAVITHRA P, 15UMA096 of IIB.Sc., MAT has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr. E. Dhatchin murthy
Course Coordinator
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Nadu. INDIA

Mr. 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 MANIKANDAN S, 15UMA073 of IIB.Sc., MAT has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

TIRUCHENGODE - 637 215 Namakkal-Di. Tamil Nadu. INDIA

Mr. K.M. Prabusankarlal Head of the Department

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# Certificate

This is to certify that KAVIYA P, 15UMB017 of IIB.Sc., MB has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

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Mr. K.M.Prabusankarlal Head of the Department

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



# Certificate

This is to certify that ROHINI B, 15UMB032 of IIB.Sc., MB has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, 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
PRINCIPAL

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Mr. K.M.Prabusankarlal
Head of the Department

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



# Certificate

This is to certify that ASHWIN V, 15UBA008 of IIBBA has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr. E. Dhatchinamurthy
Course Coordinator

Mr. K.M.Prabusankarlal
Head of the Department

**Dr.V.Radhakrishnan**Principal

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# Certificate

This is to certify that KANNAN V, 15UBA036 of IIBBA has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

And Course Coordinator

Mr. K.M.Prabusankarlal Head of the Department

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# Certificate

This is to certify that VINOTH S, 15UBA099 of IIBBA has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr. E. Dhatchinhmurthy
Course Coordinator

Mr. 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



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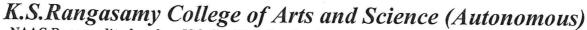
This is to certify that MADHAN KUMAR S, 15UBT052 of II B.Sc.,BT has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Mr.L.Dhatchinamurthy Course Coordinator

Mr. 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 SANGEETHA N, 15UBT067 of II B.Sc., BT has completed a Certificate Course in Cell Phone Servicing during the academic year 2016-2017, ODD/EVEN semester conducted by the Department of Electronics and Communication, K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15

Course Coordinator

.S. Rangasa Tamii Nadu, INDIA Namakkal-Di

Mr. K.M.Prabusankarlal Head of the Department