



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 2018-2019

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Value added courses offered by the College



Academic Year 2018 - 2019

Course Name	Semester	Offering Department
• Cell Phone Servicing	- ODD / EVEN	- Electronics and Communication
• Personality Development	- ODD / EVEN	- 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

Reach us @ www.ksrcas.edu

PRINCIPAL

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

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

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

Tiruchengode – 637 215

Department of Electronics and Communication

CIRCULAR

From
The Head
Department of Electronics & Communication

To
All HODs
Students of all Departments

Date: 20-08-2018


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


Course Coordinator


Head of the Department
Dr. K.M. PRAB USANKARLAL, M.Sc., M.Phil., M.E., Ph.D.,
Associate Professor & Head,
Dept. of Electronics & Communication
K.S. Rangasamy College of Arts & Science (Autonomous)
Tiruchengode - 637 215, Namakkal Dt. T.N.


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TIRUCHENGODE - 637 215
Namakkal Dt. Tiruchengode

15UECCC01	CERTIFICATE COURSE: CELL PHONE SERVICING	ODD/EVEN
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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)
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.R.Kiruba

Department : B.Sc. ELEC

Class : II UG

Subject : CERTIFICATE COURSE: CELL

Period : ODD/EVEN 2018-2019

PHONE SERVICING (15UECCC01)

S No	Unit	Topic	No Of Hours
1	I	Introduction to mobile phones-Generations of mobile phones	2
2	I	FHSS networks-GSM-Spread spectrum-CDMA-TDMA	2
3	I	Basic electronics components.	2
4	II	Handset Specific operating systems-Handset features & applications	2
5	II	Working principle of mobile handset	2
6	II	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	III	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	V	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

[Dr.K.M.PRABUSANKARLAL]




Faculty
Signature
with Date
[Ms.R.Kiruba]

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TIRUCHENGODE - 637 215

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

CERTIFICATE COURSE CERTIFICATE ISSUE DETAILS

Academic Year 2018-2019


Course Code: 15UECC01

Course Name: Cell Phone Servicing

Batch : 2017-2020

S. No	Register No	Student Name	STUDENTS SIGNATURE
1	17UEN005	ARUN BALAJI M	Arun Balaji M
2	17UEN056	SINDHU M	Sindhu M
3	17UCO017	GOWTHAMRAJ K	Gowthamraj K
4	17UCC003	AJITHKUMAR P	Ajithkumar P
5	17UCC009	BALAJI DATTATREY PINGLE	Balaji Dattatreya Pingle
6	17UMA035	HARIHARAN V	Harihara V
7	17UMA051	KARTHIYAKINI P	Karthiyakini P
8	17UMA064	MANIKANDAN P	Manikandan P
9	17UMA071	MURUGANANDAM B V	Muruganandam B V
10	17UPH001	ADITHIYAN R	Adithyan R
11	17UPH016	DINESHKUMAR R	Dineshkumar R
12	17UPH033	JANCY M	Jancy M
13	17UBT009	BHARATHI M	Bharathi M
14	17UBT013	DEEPIGA J P	Deepiga J P
15	17UCH002	AJITH S	Ajith S
16	17UCH008	BOOPALAN S	Boopalan S
17	17UCH017	KAVIN T M	Kavin T M
18	17UCS076	JAVITH R	Javith R
19	17UCS079	JEEVA D	Jeeva D
20	17UCS083	KAMALISHWAR M	Kamalishwar M
21	17UCA012	ARUN KUMAR B	Arun Kumar B
22	17UCA016	ARUNKUMAR N	Arun Kumar N
23	17UBA073	MOHANRAJ S	Mohanraj S


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Dr. K.M. PRABUSANKARLAL, M.Sc., M.Phil., M.E., Ph.D.,
Associate Professor & Head,
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TIRUCHENGODE - 637 215

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

CERTIFICATE COURSE NAME LIST

Academic Year 2018-2019

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch : 2017-2020

S. No	Register No	Student Name	12/19	13/19	14/19	19/19	20/19	21/19	22/19	26/19	27/19
1	17UEN005	ARUN BALAJI M	a	/	/	/	/	/	/	/	/
2	17UEN056	SINDHU M	/	/	/	/	/	a	/	/	/
3	17UCO017	GOWTHAMRAJ K	/	/	/	/	/	/	/	/	/
4	17UCC003	AJITHKUMAR P	/	a	/	/	/	/	/	/	/
5	17UCC009	BALAJI DATTATREY PINGLE	/	/	/	/	/	/	/	/	a
6	17UMA035	HARIHARAN V	/	/	/	/	/	/	/	/	/
7	17UMA051	KARTHIYAKINI P	/	/	/	/	/	/	/	/	/
8	17UMA064	MANIKANDAN P	/	/	a	/	/	/	/	/	/
9	17UMA071	MURUGANANDAM B V	/	/	/	/	/	/	/	/	/
10	17UPH001	ADITHIYAN R	/	/	a	/	/	/	/	/	/
11	17UPH016	DINESHKUMAR R	/	/	/	/	/	/	/	/	/
12	17UPH033	JANCY M	/	/	/	/	/	a	/	/	/
13	17UBT009	BHARATHI M	/	/	/	/	/	/	/	/	/
14	17UBT013	DEEPIGA J P	/	/	/	/	/	/	/	/	/
15	17UCH002	AJITH S	/	/	/	/	a	/	/	/	/
16	17UCH008	BOOPALAN S	/	/	/	/	/	/	/	/	/
17	17UCH017	KAVIN T M	/	/	/	/	/	/	/	/	/
18	17UCS076	JAVITH R	/	/	/	/	/	/	/	/	/
19	17UCS079	JEEVA D	/	a	/	/	/	/	/	/	/
20	17UCS083	KAMALISHWAR M	/	/	/	/	/	/	/	/	/
21	17UCA012	ARUN KUMAR B	/	/	/	/	/	/	/	/	/
22	17UCA016	ARUNKUMAR N	/	/	/	/	/	/	/	/	/
23	17UBA073	MOHANRAJ S	/	/	/	/	/	/	/	/	/

Staff Signature *[Handwritten Signatures]*

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

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION

CERTIFICATE COURSE NAME LIST

Academic Year 2018-2019

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch : 2017-2020

S. No	Register No	Student Name	28/6	29/6	3/6	4/70	5/70	6/70	10/70	11/70	10/12
1	17UEN005	ARUN BALAJI M	/	/	/	/	/	/	a	/	/
2	17UEN056	SINDHU M	/	/	/	/	/	/	/	/	a
3	17UCO017	GOWTHAMRAJ K	/	/	/	/	/	/	/	/	/
4	17UCC003	AJITHKUMAR P	/	/	/	/	/	/	/	/	/
5	17UCC009	BALAJI DATTATREY PINGLE	/	/	/	a	/	/	/	/	/
6	17UMA035	HARIHARAN V	/	/	/	/	/	/	/	a	/
7	17UMA051	KARTHIYAKINI P	/	/	/	/	/	/	/	/	/
8	17UMA064	MANIKANDAN P	/	a	/	/	/	/	/	/	/
9	17UMA071	MURUGANANDAM B V	/	/	/	/	/	a	/	/	/
10	17UPH001	ADITHIYAN R	/	/	a	/	/	/	/	/	/
11	17UPH016	DINESHKUMAR R	/	/	/	/	/	/	/	/	/
12	17UPH033	JANCY M	/	/	/	/	/	/	/	/	/
13	17UBT009	BHARATHI M	/	/	/	/	/	/	/	/	/
14	17UBT013	DEEPIGA J P	/	/	/	/	a	/	/	/	/
15	17UCH002	AJITH S	/	/	/	/	/	/	/	/	/
16	17UCH008	BOOPALAN S	/	/	/	/	/	a	/	/	/
17	17UCH017	KAVIN T M	/	/	/	/	/	/	/	/	/
18	17UCS076	JAVITH R	/	/	/	/	/	/	/	/	/
19	17UCS079	JEEVA D	/	/	a	/	/	/	/	/	/
20	17UCS083	KAMALISHWAR M	/	/	/	/	/	/	/	/	/
21	17UCA012	ARUN KUMAR B	/	/	/	/	/	/	/	/	/
22	17UCA016	ARUNKUMAR N	/	/	/	/	/	/	/	/	/
23	17UBA073	MOHANRAJ S	/	/	/	/	/	/	/	/	/

Staff Signature

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION

CERTIFICATE COURSE NAME LIST

Academic Year 2018-2019

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch : 2017-2020

S. No	Register No	Student Name	11/12	12/12	13/12	14/12	17/12	19/12	20/12	21/12	27/12	28/12	31/1	4/1
1	17UEN005	ARUN BALAJI M	/	/	/	a	/	/	/	/	/	/	/	/
2	17UEN056	SINDHU M	/	/	/	/	/	/	/	/	/	a	/	/
3	17UCO017	GOWTHAMRAJ K	/	/	/	/	/	/	/	/	/	/	/	/
4	17UCC003	AJITHKUMAR P	/	/	/	/	/	/	/	/	/	/	/	/
5	17UCC009	BALAJI DATTATREY PINGLE	/	/	/	/	/	a	/	/	/	/	/	/
6	17UMA035	HARIHARAN V	/	/	/	/	/	/	a	/	/	/	/	/
7	17UMA051	KARTHIYAKINI P	/	/	/	/	/	/	/	/	/	/	/	/
8	17UMA064	MANIKANDAN P	/	/	/	/	/	/	/	/	/	/	/	/
9	17UMA071	MURUGANANDAM B V	/	/	/	/	/	/	/	/	/	/	/	/
10	17UPH001	ADITHIYAN R	/	/	/	/	/	/	/	/	/	/	/	/
11	17UPH016	DINESHKUMAR R	/	/	/	/	/	a	/	/	/	/	/	/
12	17UPH033	JANCY M	/	/	/	/	/	/	/	/	/	/	/	/
13	17UBT009	BHARATHI M	/	/	/	/	/	/	/	/	/	/	/	/
14	17UBT013	DEEPIGA J P	/	/	/	/	/	/	/	/	/	/	/	/
15	17UCH002	AJITH S	/	/	/	/	/	a	/	/	/	/	/	/
16	17UCH008	BOOPALAN S	/	/	/	/	/	/	/	/	/	/	/	/
17	17UCH017	KAVIN T M	/	/	/	/	/	/	/	/	/	/	/	/
18	17UCS076	JAVITH R	/	/	/	a	/	/	/	/	/	/	/	/
19	17UCS079	JEEVA D	/	/	/	/	/	/	/	/	/	/	/	/
20	17UCS083	KAMALISHWAR M	/	/	/	/	/	/	/	/	/	/	/	/
21	17UCA012	ARUN KUMAR B	/	/	/	/	/	/	/	/	/	/	/	/
22	17UCA016	ARUNKUMAR N	/	/	/	/	/	/	/	/	/	/	/	/
23	17UBA073	MOHANRAJ S	/	/	/	/	/	/	/	/	/	/	/	/

Staff Signature

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

2018-2019

CLASS : UUG 15UECC01 SUBJECT : Cell Phone Servicing.

Planned		Topics Covered	Executed		Signature	
Date	Hour		Date	Hour	Faculty	HOD
12/9	4.15-5.15	Introduction to mobile phones generations of	12/9	4.15-5.15	R.Kg	}
13/9	4.15-5.15	mobile phones	13/9	4.15-5.15	R.Kg	
14/9	4.15-5.15	FHSS network-GSM-Spread spectrum-CDMA-	14/9	4.15-5.15	R.Kg	}
19/9	4.15-5.15	TDMA	19/9	4.15-5.15	R.Kg	
20/9	4.15-5.15	Basic electronics	20/9	4.15-5.15	R.Kg	}
21/9	4.15-5.15	Components	21/9	4.15-5.15	R.Kg	
22/9	4.15-5.15	Handset Specific operating systems-Handset features &	22/9	4.15-5.15	R.Kg	}
26/9	4.15-5.15	applications	26/9	4.15-5.15	R.Kg	
27/9	4.15-5.15	Working principles of	27/9	4.15-5.15	R.Kg	}
28/9	4.15-5.15	mobile handset	28/9	4.15-5.15	R.Kg	
3/10	4.15-5.15	Components used in	3/10	4.15-5.15	R.Kg	}
4/10	4.15-5.15	mobile handsets	4/10	4.15-5.15	R.Kg	
5/10	4.15-5.15	Tools & equipment used for repairing-maintenance	5/10	4.15-5.15	R.Kg	}
6/10	4.15-5.15	of mobile handsets	6/10	4.15-5.15	R.Kg	
10/10	4.15-5.15	Types of power supply & Batteries	10/10	4.15-5.15	R.Kg	}
11/10	4.15-5.15		11/10	4.15-5.15	R.Kg	
10/12	4.15-5.15	Booting a battery-	10/12	4.15-5.15	R.Kg	}
11/12	4.15-5.15	Trouble shooting basics	11/12	4.15-5.15	R.Kg	
12/12	4.15-5.15	Network problems-power failure (dcd)- Mobile phone hardware troubleshooting water damage, hanging, charging	12/12	4.15-5.15	R.Kg	}
13/12	4.15-5.15	& Keypad problems	13/12	4.15-5.15	R.Kg	
14/12	4.15-5.15	Handsets Assembly &	14/12	4.15-5.15	R.Kg	}
17/12	4.15-5.15	Disassembly	17/12	4.15-5.15	R.Kg	

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CLASS: UG-15UECC01 2018-2019 SUBJECT: Cellphone Servicing

Planned		Topics Covered	Executed		Signature	
Date	Hour		Date	Hour	Faculty	HOD
19/12	4.15-5.15		Soldering & Desoldering	19/12	4.15-5.15	R.Kg.
20/12	4.15-5.15	SMD rework station	20/12	4.15-5.15	R.Kg.	
21/12	4.15-5.15	Mobile software's - Data cable-card reader - Mobile display - Remove/replace component	21/12	4.15-5.15	R.Kg.	
27/12	4.15-5.15	Mobile phone hardware	27/12	4.15-5.15	R.Kg.	[Signature]
28/12	4.15-5.15	troubleshooting - troubleshooting through circuit diagram - Transmission Transmitter	28/12	4.15-5.15	R.Kg.	
		filter				
3/1	4.15-5.15	Microphone - Reception - Antenna - RF power amplifier - local oscillator - Audio IC - Speaker	3/1	4.15-5.15	R.Kg.	[Signature]
4/1	4.15-5.15	charge	4/1	4.15-5.15	R.Kg.	
5/1	4.15-5.15	Revision.	5/1	4.15-5.15	R.Kg.	
6/1	4.15-5.15		6/1	4.15-5.15	R.Kg.	[Signature]

Syllabus Completed
R.Kg.
[Signature]

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION

CERTIFICATE COURSE MARK LIST

Academic Year 2018-2019

Course Code: 15UECCC01

Course Name: Cell Phone Servicing

Batch : 2017-2020

Max Marks: 100

S. No	Register No	Student Name	ASS 1 (10)	ASS 2 (10)	Test (75)	Att %	Att (5)	Total
1	17UEN005	ARUN BALAJI M	9	8	70	92	5	92
2	17UEN056	SINDHU M	8	7	72	93	5	92
3	17UCO017	GOWTHAMRAJ K	7	8	71	91	5	91
4	17UCC003	AJITHKUMAR P	8	7	73	90	5	93
5	17UCC009	BALAJI DATTATREY PINGLE	8	8	74	92	5	95
6	17UMA035	HARIHARAN V	8	8	72	93	5	93
7	17UMA051	KARTHIYAKINI P	9	8	73	90	5	95
8	17UMA064	MANIKANDAN P	7	9	71	90	5	92
9	17UMA071	MURUGANANDAM B V	9	8	70	91	5	92
10	17UPH001	ADITHIYAN R	6	7	72	94	5	90
11	17UPH016	DINESHKUMAR R	6	8	73	96	5	92
12	17UPH033	JANCY M	9	7	70	97	5	91
13	17UBT009	BHARATHI M	7	8	71	92	5	91
14	17UBT013	DEEPIGA J P	8	7	72	93	5	92
15	17UCH002	AJITH S	8	8	72	95	5	93
16	17UCH008	BOOPALAN S	7	9	70	92	5	91
17	17UCH017	KAVIN T M	9	9	70	93	5	93
18	17UCS076	JAVITH R	6	8	74	93	5	92
19	17UCS079	JEEVA D	7	7	70	94	5	89
20	17UCS083	KAMALISHWAR M	8	6	72	92	5	91
21	17UCA012	ARUN KUMAR B	6	8	73	90	5	92
22	17UCA016	ARUNKUMAR N	8	7	70	93	5	90
23	17UBA073	MOHANRAJ S	8	7	71	92	5	91

Staff Signature
(Ms.R.Kiruba)

HoD
(Dr.K.M.Prabusankarlal)

PRINCIPAL
(Dr.V.Radhakrishnan)

Dr. K.M. PRABUSANKARLAL, M.Sc., M.Phil., M.A., Ph.D.,
Associate Professor & Head,
Dept. of Electronics & Communication
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K.S.Rangasamy College of Arts and Science (Autonomous)

NAAC Reaccredited and an ISO Certified Institution affiliated to Periyar University, Salem

Included Under 2(f) & 12(B) of UGC Act, 1956


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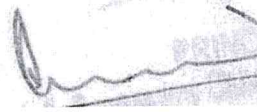


Certificate

*This is to certify that ARUN BALAJI M, (17UEN005) of II BA ENG has completed a Certificate Course in Cell Phone Servicing during the academic year 2018-2019, 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 **SINDHU M, (17UEN056)** of **II BA ENG** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Course Coordinator

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Dr.V.Radhakrishnan
Principal

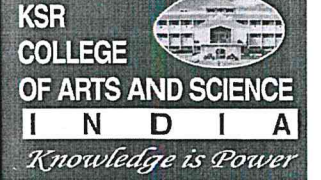
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Certificate

This is to certify that GOWTHAMRAJ K, (17UCO017) of II B.COM has completed a Certificate Course in **Cell Phone Servicing** during the academic year 2018-2019, 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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Certificate

This is to certify that AJITHKUMAR P, (17UCC003) of II B.COM CA has completed a Certificate Course in **Cell Phone Servicing** during the academic year 2018-2019, 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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Certificate

This is to certify that **BALAJI DATTATREY PINGLE, (17UCC009)** of **II B.COM CA** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019**, **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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Course Coordinator

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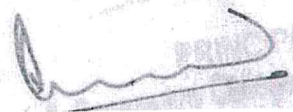


Certificate

This is to certify that HARIHARAN V, (17UMA035) of II B.Sc., MAT has completed a Certificate Course in **Cell Phone Servicing** during the academic year 2018-2019, 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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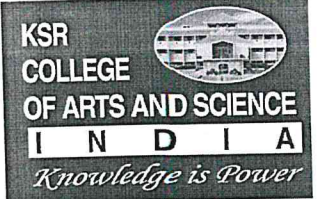
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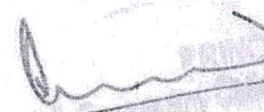


Certificate

This is to certify that KARTHIYAKINI P, (17UMA051) of II B.Sc., MAT has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Course Coordinator


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Certificate

This is to certify that MANIKANDAN P, (17UMA064) of II B.Sc., MAT has completed a Certificate Course in Cell Phone Servicing during the academic year 2018-2019, ODD/EVEN semester conducted by the Department of Electronics and Communication, **K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode-15**

L. Dhatchinamurthy

Mr.L.Dhatchinamurthy

Course Coordinator

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K.M.P.

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Certificate

This is to certify that MURUGANANDAM B V, (17UMA071) of II B.Sc., MAT has completed a Certificate Course in Cell Phone Servicing during the academic year 2018-2019, 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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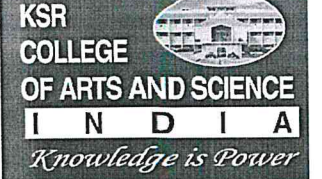
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Certificate

*This is to certify that ADITHIYAN R, (17UPH001) of II B.Sc., PHY has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Certificate

*This is to certify that **DINESHKUMAR R, (17UPH016)** of **II B.Sc., PHY** has completed a Certificate Course in ***Cell Phone Servicing*** during the academic year **2018-2019, 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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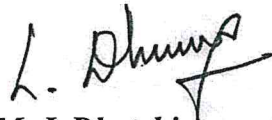
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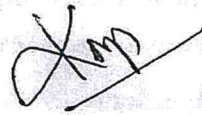


Certificate

*This is to certify that **JANCY M, (17UPH033)** of **II B.Sc., PHY** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Certificate

This is to certify that **BHARATHI M, (17UBT009)** of **II B.Sc., BT** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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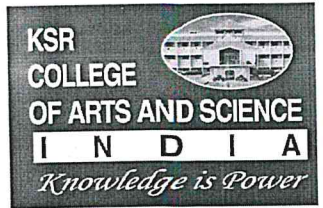
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Certificate

*This is to certify that **DEEPIGA J P, (17UBT013)** of **II B.Sc., BT** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Course Coordinator

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Certificate

*This is to certify that AJITH S, (17UCH002) of II B.Sc., CHE has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Course Coordinator

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Certificate

*This is to certify that **BOOPALAN S, (17UCH008)** of **II B.Sc., CHE** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Certificate

This is to certify that **KAVIN T M, (17UCH017)** of **II B.Sc., CHE** has completed a Certificate Course in **Cell Phone Servicing** during the academic year 2018-2019, 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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Certificate

*This is to certify that **JAVITH R, (17UCS076)** of **II B.Sc., CS** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Certificate

This is to certify that JEEVA D, (17UCS079) of II B.Sc., CS has completed a Certificate Course in Cell Phone Servicing during the academic year 2018-2019, 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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Certificate

This is to certify that **KAMALISHWAR M, (17UCS083)** of **II B.Sc., CS** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Certificate

*This is to certify that **ARUN KUMAR B, (17UCA012)** of **II BCA** has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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This is to certify that ARUNKUMAR N, (17UCA016) of II BCA has completed a Certificate Course in **Cell Phone Servicing** during the academic year **2018-2019, 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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Certificate

*This is to certify that **MOHANRAJ S, (17UBA073)** of **II BBA** has completed a Certificate Course in ***Cell Phone Servicing*** during the academic year **2018-2019, 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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