

K.S. School of Engineering and Management
Registration Form for
One-Day workshop
on
Sonar Signal Processing
3rd Feb 2018

Name:.....

Deisgnation:.....

Organisation:.....

.....

.....

.....

Mobile No.....

e-mail:

**Signature of the Signature of the Seal &
Candidate Principal/Employee**

Send the filled, signed and scanned registration form to karthik.p@kssem.edu.in within **30th Jan 2018**. The registration fee of **Rs. 500** will be collected during registration. Only first 100 registrations will be considered. Please note that registrations start by 9.00 am and first session starts by 9.30 am sharp on 3rd Feb 2018

Patrons (from VTU)

Dr. Karisiddappa, Hon'ble Vice Chancellor, VTU
Dr. H.N. Jagannatha Reddy, Registrar, VTU

Patrons (from INAE)

Dr. Vasudev. K. Atre, Former Director General of DRDO and Former Adviser to Defence Minister
Dr. A.R. Upadhyaya, Former Director, NAL

Patrons: (from Kammavari Sangham)

Sri. Y. Ramachandra Naidu, President
Sri. K. Venkatesh Naidu, Secretary
Sri. D. Rukmangada, Treasurer

Organisers and Facilitators:

Dr. S.N. Sridhara, Principal/Director, KSSEM
Dr. Girish V Attimarad, Prof & Head, Dept. of ECE
Dr. Karthik P., Professor, Dept. of ECE

Contact:

Dr.Karthik P.,Chief Coordinator,
Prof., Dept. of ECE, KSSEM
Mob: 9739319167
Email: karthik.p@kssem.edu.in



Kammavari Sangham (R), 1952

K.S. School of Engineering and Management, Bengaluru
offers

One-Day Workshop
on
Sonar Signal Processing
on
3rd Feb 2018

in collaboration with

Visvesvaraya Technological University
Belagavi
&
Indian National Academy of Engineering
New Delhi



About the College

K.S. School of Engineering and Management (KSSEM) was established in the year 2010 by KammavariSangham and is approved by AICTE, New Delhi, and affiliated to Visvesvaraya Technological University (VTU), Belagavi. KSSEM offers BE and M.Tech in Civil Engineering, Mechanical Engineering, Electrical Engineering, Electrical and Electronics Engineering and Computer Science Engineering and MBA in HR, Finance and Marketing.

KSSEM is located amidst green campus of 7 acres and has marvellous infrastructure and high-end equipment and research facility. Within a short span of about 7 years, KSSEM has produced quality papers in research journals and has fetched research grant from various funding agencies. It has produced good results in VTU examinations and obtained ranks.

About the Programme

SONAR (SOund Navigation And Ranging) is an acronym for the technique or the equipment that uses sound propagation to detect, localise, or communicate with objects in water, or to navigate vessels on or under the surface of water. The role of sound in sonar is similar to that of electromagnetic waves in radar. There are two types of sonar, viz. active and passive. An active sonar transmits a sequence of sound pulses into water and listens for echoes. A passive sonar listens for the sound emitted by the underwater target. A sonar receiver system consists primarily of (1) an array of sensors, called

hydrophones, for making acoustic measurements in water, and (2) a processor for extracting relevant information from the measurements. In an active sonar, the information bearing signal is a sequence of echoes distorted by the underwater sound channel and contaminated by ambient noise and reverberation. In a passive sonar, the received signal is a distorted and noisy version of the sound radiated by the target. The nature of processing depends on the nature of application and the operational environment.

This FDP is designed to help the aspirants seeking knowledge in the domain of SONAR. After providing an introduction to sonar and underwater sound propagation, the participants will be exposed to the basic signal processing techniques employed for target detection and localisation, and principles of underwater acoustic communication. The knowledge acquired in the FDP will help the participants to write research project proposals in the areas of sonar and underwater communication for submission to various funding agencies, and to carry out research leading to the award of Ph.D.

Who can attend

Students, Faculty, Candidates from industry and corporates. Candidates belonging to any stream of engineering, science and mathematics can attend this FDP.

Last Date for Registration: 30th Jan 2018.

Registration Fee: Rs. 500 (includes training material in e-copy, lunch & tea and certificate)

Venue: Aryabhata Seminar Hall, KSSEM.

Note: For outstation participants, information on near-by lodging facility will be provided on request.

Objectives

- 1.To provide an introduction to SONAR and underwater acoustics.
- 2.To provide an introduction to the basics of array signal processing.
- 3.To provide an introduction to underwater target detection and localization techniques.
- 4.To introduce the principles of underwater acoustic communication.
- 5.To demonstrate sonar signal processing algorithms through simulations.

Schedule

- 09.00-09.30 Registration
09.30-09.45 Inauguration
09:45– 11:15Active and passive sonar –
signal,noise, and reverberation
11:30 – 13:00 Array signal processing
13:00 – 13:45 Lunch break
13:45 – 15:15 Target detection and localisation
15:30 – 17:00 Underwater acoustic communication
17:00 – 17:30 Coffee break
17:30 – 18:30 Simulations and demonstration

Resource persons

1. **Prof. G. V. Anand**, PES University, Bangalore.
Formerly Professor and Chairman, ECE
Dept., Indian Institute of Science, Bangalore.
2. **Prof. Sanjeev Gurugopinath**, PES University,
Bangalore.
3. **Prof. Venkatesh Vadde**, PES University,
Bangalore.
4. **Mr. P. V. Nagesha**, PES University, Bangalore.

K. S. SCHOOL OF ENGINEERING & MANAGEMENT

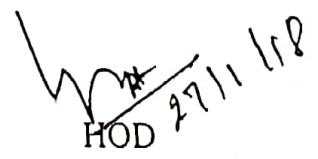
Bangalore-560062 Bangalore-560109

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

Date: 27-01-2018

CIRCULAR

Department of ECE is organizing a one Day Workshop on "Sonar Signal Processing" on 3rd February 2018. Sonar signal processing - the Sonar systems are generally used underwater for range finding and detection. Active sonar emits an acoustic signal, or pulse of sound, into the water. The sound bounces off the target object and returns an "echo" to the sonar transducer, which finds wide application in naval and water transportation. Students are informed to attend the workshop without fail.


HOD 27/1/18

Department of ECE
KSSEM

Professor & Head
Dept. of Electronics & Communication Engg.
K. S. School of Engineering & Management
Bangalore-560109

One Day Workshop on Sonar Signal Processing

Attendance

3/2/2018

S.No	Name	College name	Signature
1	Shanthala G.M.	KSSEM, B'la	[Signature]
2	Devika N	KSSEM, B'la	[Signature]
3	Chethan Shaam P	KSSEM, B'la	[Signature]
4	Gopalakrishna Ch	KSSEM, B'la	[Signature]
5	Shalini Shravan	KSSEM, B'la	[Signature]
6	Vinay R	KSSEM, B'la	[Signature]
7	Poojith S	KSSEM, B'la	[Signature]
8	Gunashree T. S	KSSEM, B'la	[Signature]
9	SWATI SANKAR	KSSEM, B'la	[Signature]
10	Ravikiran B.n.	KSSEM	[Signature]
11	Vinay R	KSSEM	[Signature]
12	Vidhya R	KSSEM	[Signature]
13	MANU D	KSSEM	[Signature]
14	Dr. D. S. Shyamth	KSSEM	[Signature]
15	Prabha - S. A	KSSEM	[Signature]
16	Renuka - V. Tale	KSSEM	[Signature]
17	Shilpa A.P	KSSEM	[Signature]
18	Syed Waseem Tabra	KSSEM	[Signature]
19	Dinesh Kumar D.S	KSSEM	[Signature]
20	Siddhalingesu Budu	GATE	[Signature]
21	Hannu anthappa	Rajaji Eng coll	[Signature]
22	Suresh K	KSSEM	[Signature]
23	Surekha Katakari	BMSIT	[Signature]
24	NAVEEN Kumar		
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Professor & Head
Dept. of Electronics & Communication Engineering

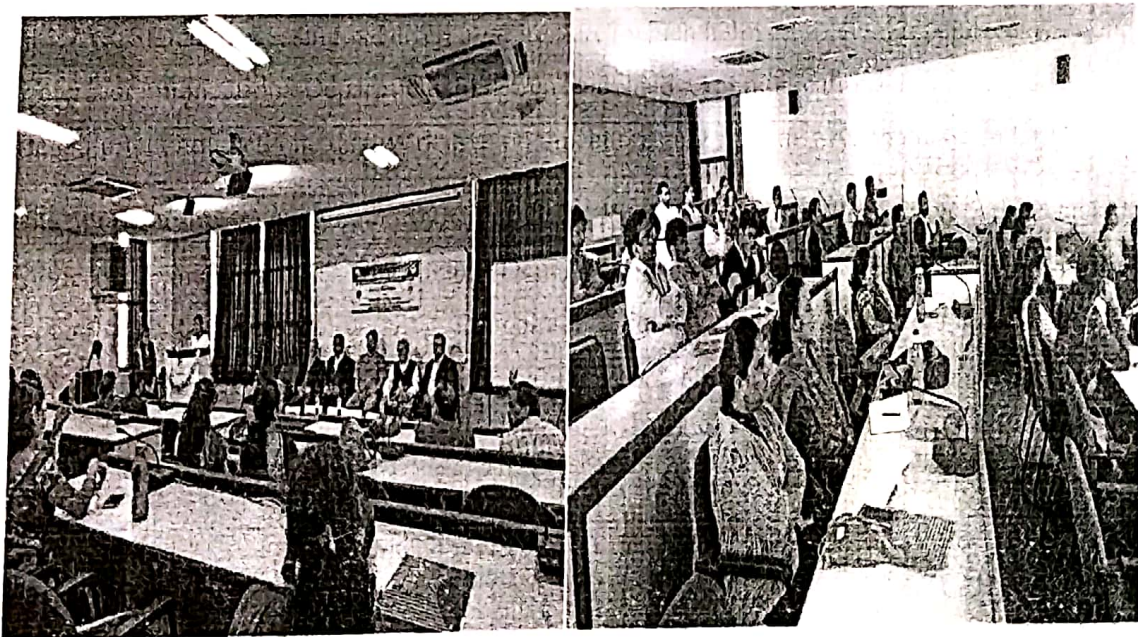
**K S School of Engineering and Management
Bengaluru-560109**

Department of Electronics and Communication

**One Day Work Shop on SONAR Signal Processing
(03-02-2018)**

SONAR Signal Processing is current research area which helps to solve many problems in under water communication. Department of Electronics and Communications Engineering, KSSEM Bengaluru conducted one day workshop on this interesting field in Aryabhata Seminar Hall.

The Workshop was inaugurated by Chief Guest **Prof. G.V.Anand**, PES University, Bangalore, formerly Professor and Chairman, Dept., of ECE, IISC, Bangalore, **Prof. Sanjeev Gurugopinath**, PES University, Bangalore, **Prof. Venkatesh Vadde**, PES University, Bangalore, **Dr. S N Sridhara**, Principal/Director, KSSEM, Bangalore, **Dr. Girish V. Attimarad**, Professor & Head, Department of ECE, KSSEM and **Dr. Karthik P**, Professor, Department of ECE, KSSEM. The workshop was coordinated by Dr. Karthik P, Professor, Department of ECE, KSSEM and supported by all the faculty members of the department.



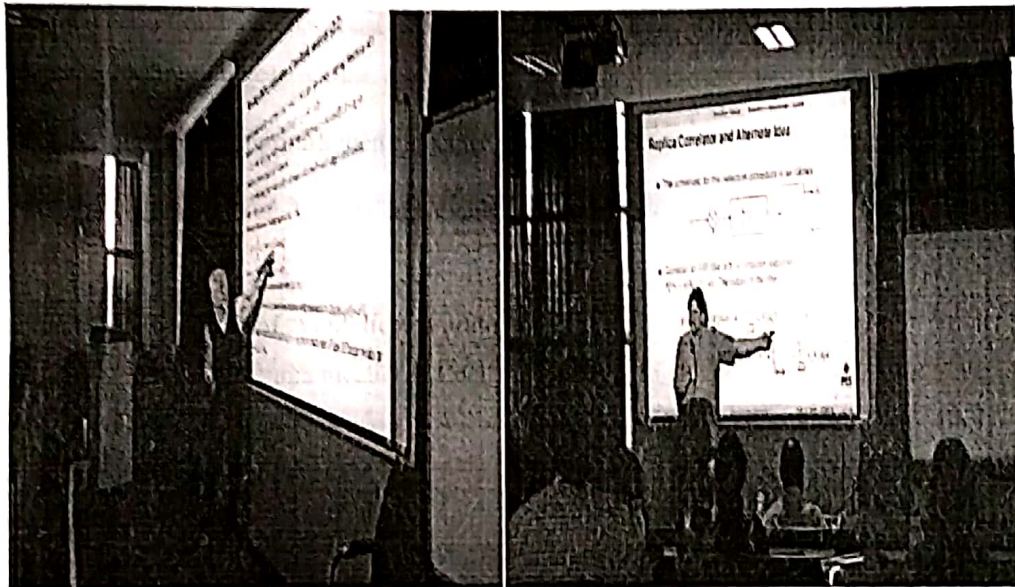
Prof. G.V.Anand In his opening session introduced the participant to underwater water communication and ocean acoustic sensors, Reverberation, SONAR, SOFAR, modelling of sound propagation in deep oceans.

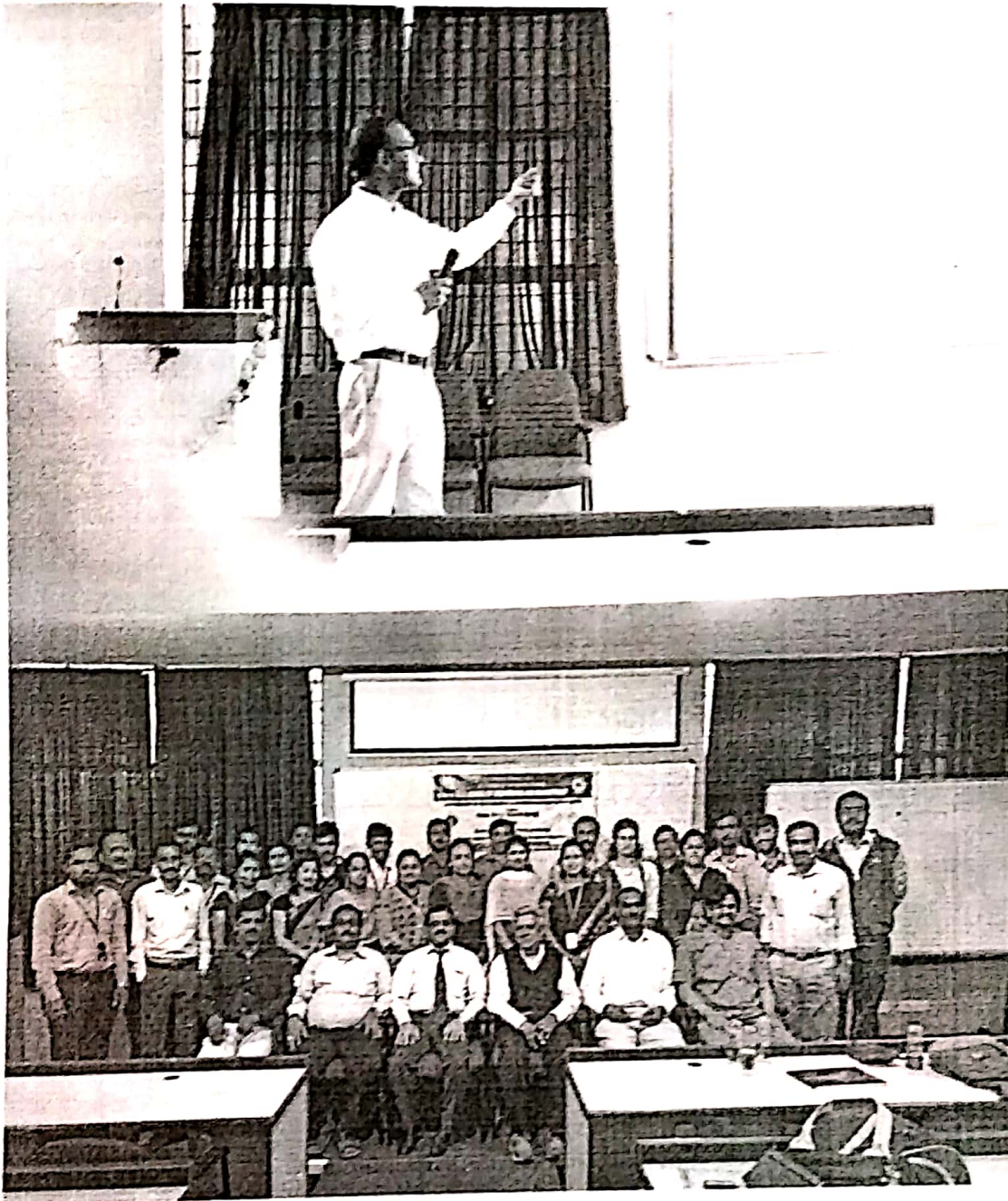
Prof. Sanjeev Gurugopinath then explained about detection and estimation techniques.

After lunch break **Prof. G.V.Anand** explicated about mathematical modelling using sensor arrays.

In the final session **Prof. Venkatesh Vadde** apprised the audience about the Applications and Scenarios of UWA Communications, Challenges of UWA Communication, UWA Channels, Characteristics and Measurements, UWA Communication MODEM design, OFDM, MIMO.

The workshop was well received and appreciated by the participants.






Professor & Head
Dept. of Electronics & Communication Engineering
K. S. School of Engineering & Management
Bangalore-560 109



Phone : H.O. : 26678053, 26678735
College : 28425012, 28425013

K. S. GROUP OF INSTITUTIONS K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

(Approved by AICTE & Recognised by VTU)

15/1, Mallasandra, Off. Kanakapura Road, Bengaluru- 560 109

No. **6820**

Date 18/2/2018

Paid to Sri Prof. G. V. ANAND

a Sum of Rupees Eighteen Thousand Rupees

..... by Cash / Cheque No.....

towards the Account of One day workshop on SNR Signal Processing

Rs. 18,000/-

[Signature]
Treasurer / Secretary
[Signature]

Manager

[Signature]
Receiver's Signature

[Signature]



KSSEM

K. S. GROUP OF INSTITUTIONS K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

(Approved by AICTE & Recognised by VTU)

15/1, Mallasandra, Off. Kanakapura Road, Bengaluru- 560 109

Phone : H.O. : 26678053, 26678735
College : 28425012, 28425013

No. **6848**

Date 18/2/2018

Paid to Sri Dr. Karthik P

a Sum of Rupees Four thousand seven hundred &

fifty seven only by Cash / ~~Cheque~~ No.....

towards the Account of Expenses held for Workshop
(SONAR signal processing) at ECE dept.

Rs. 4757/-

[Signature]
Treasurer / Secretary

[Signature]

Manager

[Signature]
Receiver's Signature

K S SCHOOL OF ENGINEERING AND MANAGEMENT

DEPARTEMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Workshop Budget

Workshop Title: SONAR SIGNAL PROCESSING

S.NO	DESCRIPTION OF EXPENSE	AMOUNT IN INR
1	Printing Brochures and Certificates Banners	1,500
2	Inauguration Function (Decoration & Speakers)	1,500
3	Speakers (4 members)	18,000
4	Travel Arrangements	5,000
7	Conference Kits	1,000
8	Lunch and Tea (50 Persons) (100 X 50 = 5,000 + 2,000)	7,000
9	Misc. Expense	1,000
	Total Expense	Rs. 35,000

From Registration

For One Person Registration Amount : Rs. 500/-

Total Expected Participants: 30

Total Amount Expected to Generate: 30 X 500 = Rs. 15,000/-

To: Secretary

For kind approval and release of Rs. 20,000/- for conducting FDP on Sonar Signal processing to be held on 3/2/18

Dr. S. N. SRIDHARA

Principal/Director

K. S. School Of Engineering & Management
BENGALURU-560 109.

K. S. Sridhar
1.2.18

HOD (ECE)

Professor & Head

Dept. of Electronics & Communication Engineering
K.S. Group of Institutions
K.S. School of Engineering & Management
Bangalore-560 062.

Total exps = 28257

Ref. fee = 13,600

Inst. contribution = 15257

Expenditure Incurred on Sonar Signal Processing

1. Honorarium	18,000/- ✓
2. Lunch & Tea	5,795/- ✓
3. Certificate printing + Photo	1,213/- ✓
4. Flower	150/- ✓
5. Bouquet	600/- ✓
6. Workshop kit	1,499/- ✓
7. Transport for guest	1,000/- ✓
TOTAL	<u><u>28,257</u></u>

Cash Payment = 22,757.00

Chq Payment = 5,500.00 (Canteen)

Total 28,257.00

5795
5500
295 (Sparks)


 Professor & Head
 Dept. of Electronics & Communication Engineering
 K.S. Group of Institutions
 K.S. School of Engineering & Management
 Bangalore-560 062.

22,757 - ✓
 18,000 - ✓ (Honorarium)
 4,757 - ✓ (Sparks)
 0.00 ✓ (Stationery)

Brought By **CASH / CREDIT**
P. KARTHIC BILL

No. **61** Sold To

Date **2/2/18**

Qty	PARTICULARS	RATE	AMOUNT	
			Rs.	P.
6	Bouquet	100	600	00
VIJAYA FLOWERS Remani, thynagar, Mysore Opp. Holy Family Church Bengaluru-560016 Prop. SIDCU, Mob. 9964774112				
Thanking you!			Total	600 00

Goods once sold will not be taken back or exchanged E & O.E.

AVENUE SUPERMARKET LTD
 CIN : 151900MH/0001/1126473
 U. TIN : 29AAAC4840112M

DMART KANAKPURA
 BANGALORE
 Phone : 080 29435575

TAX INVOICE
 Bill No: 561002052
 Bill Dt: 02/02/2018
 Your No: 02 0008
 Cashier: 02 : 12:57 pm

HSN	Particulars	Qty	Rate	Value
1	CGST @ 9.00%			
1	SGST @ 9.00%			
1	10% B1 ANNIA 600g		78.00	156.00
1	10% B1 ANNIA 1kg		139.00	139.00
		Qty:	Amt:	295.00

< - GST Breakup Details - > (Amount INR)

Sr.	Taxable Amt	GST	SGST	Total Amt
1	250.00	22.50	22.50	295.00

< Amount Recd From Customer - >

Credit Card : 295

AXIS BANK
 Date/Time : 02/02/2018 12:57:52
 CARD NUM : 417917*****5492 Swipe
 CARD TYPE : VISA EXPIRY : XXXX
 APPR CODE : 024264 REF NO : 803307272589
 AMOUNT Rs. : 295.00/- Inv No : 5115
 NAME : P KARTHIC

Above prices are inclusive of all taxes
 This is computer generated invoice and
 hence no signature is required.

** Saved Rs. 74.00/- on M.R.P. **

VARADARAJA SERVICE STN.
 596, DR. RAJAKUMAR ROAD
 RAJAJINAGAR, BIR 560010
 PH. 23320762
 TIN- 29660054660
 CASH BILL

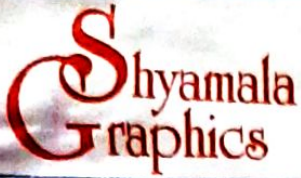
DATE: 03-02-18
 TIME: 19:51

BILL NO : 30381
 NAME:

ITEM NAME	QTY	PRICE	AMOUNT
PETROL	13.470L	76.24	1000.00
TOTAL ITEMS	13.470	76.24	1000.00
TOTAL:			₹ 1000.00

INCLUSIVE OF ALL TAXES APPLICABLE

THANK YOU



39, Venkataswamy Naidu Nilaya
2nd Main, 2nd Cross, Vaishnavi Layout
Uttarahalli, Bangalore - 560 061.
Email : shyamalagraphics@yahoo.co.in
shyamalagraphics@gmail.com
Mobile : 9845328111 Phone : 080-26391811

TAX INVOICE

No. 3604

Date : 02-02-2018

GSTIN : 29AJVPM8519J1Z8

M/s K. S. S. E. M
Mallasandra,
Bangalore 62

Sl. No.	PARTICULARS	QUANTITY	RATE	AMOUNT Rs. P.	
①	Participation Certificate	70 nos	8.00	560	00
②	4x2 Banner	3 nos	161.33 per	384	00
Total				944	00
CGST 9 %				84	96
SGST 9 %				84	96
Grand Total				1,113	92

E. & O.E.

Rupees in Words One Thousand One Hundred and Thirteen paise Twenty two only

For Shyamala Graphics

Proprietor

29AFGPC6289Q1ZL
No.: 29180207881

GST - INVOICE - CASH / CREDIT

Stationery

No: 080 41169658
22340661



DIAMOND INTERNATIONAL

Dealers in: Stationery Item & General Merchants
305, Tej Mansion, Old Tharagupet, BENGALURU -560 053

Details of Receiver / Billed to:

Name : DORANSI PAL
Address : K S S E M BANGLORE

No.: 2119 Date : 21/2/2018

Delivery At :

Pur. Order No. : Dt:

GSTIN :

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E- Way Bill No.:

State : State Code:

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No.	Particulars	HSN Code	Qty.	Rate	12% Taxable	18% Taxable	28% Taxable
①	BOTTAN PALL	-	488	131		624	
②	EGGLES PEN		500	3/6	180		
③	SLIP POUCHES		500	9/50		475	

Handwritten signature/initials

₹	Total	180	1099
.....	CGST	9	99
Central Bank of India	SGST	9	99
Avenue Road Branch	IGST	11	99
A/c No. 3034940046			
IFSC Code: CBIN0280852	Total Amount	222	1297
Goods once sold cannot be taken back or exchanged	Grand Total		1499.00
Subject to Bangalore Jurisdiction			
E. & O. E.			

Buyer's Signature

Mobile No.

For Diamond International

Handwritten signature



Bharat Petroleum

WELCOME TO

OGI LUBRICANTS SERVICES
46, 1st FLOOR
UTTAPALLE MAIN ROAD
SULLAMANYAPURA
BANGALORE
KARNATAKA
560 076

02/02/2018 18:01:08
TRANSACTION ID: 274445388
PSM: BANGALORE UTTA
INV#: 147
BAY NO: 18
VEH SEC: OTHERS
VEH#: 444
-Transaction Start Time-
02/02/2018 18:00:45
-Transaction End Time-
02/02/2018 18:01:08
MODE: OWN USE

PRODUCT: PETROL
PRESET TYPE: AMOUNT
PRESET AMT(Rs.): 100.00
RATE/LTR.: 74.23
AMOUNT(Rs.): 100.00
VOLUME(Ltr.): 1.35

Thanks for fuelling with us. You can now call us on 1800 22 4344 (toll-free) for queries, complaints on Bharatgas BPCl Petrol pumps, MAAR Lubricants or Indl. Products

5/13

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Handwritten scribbles and initials

Handwritten text: FPGI 505

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K.S. GROUP OF INSTITUTIONS
K.S. SCHOOL OF ENGINEERING & MANAGEMENT

15/1, Mallasandra, Off. Kanakapura Road, Bengaluru- 560 109.
Phone : 080-2842 5012, 2842 5013, 2842 5163 Fax : 080-2842 5164

RECEIPT

No. **1449**

Date: 8/2/2018

Received From Mr./Miss Dr. Karthik ECF

studying in B.E. / MBA / M.Tech

a sum of Rupees Thirteen thousand rupees only

towards the Library fine / Xerox / Shortage of attendance / lab. Breakage / Miscellaneous
Workshop Registration fee

Rs. 13,000/-


Accountant



**ONE DAY WORKSHOP ON Sonar Signal Processing
REGISTRATION DETAILS**

DATE: 3/2/2018

Year: 2018

Sl. No.	Faculty name	Designation	Dept.	College	Amount received	Signature
1	DIPAK CUMAR.V.C	ASST. Prof.	ECE	Global Academy	500	
2	RAVI KUMAR.H.C	ASSI. Prof.	ECE	GHOUSIA COLLEGE OF ENGG	500	
3	Sheetal Bagali	Asst. Prof.	ECE	Sir MVIT	500	
4	Vijayashri V. Belgaonkar	Asst. Prof.	ECE	Sir MVIT	500	
5	SAHANA SALAGARE	"	"	KSIT	500	
6	SUSMITHA . ALAMURU	Sr. Asst. prof	ECE	NEW HORIZON COLLEGE OF ENGG	500	
7	Dr. NISHA K C R	Associate Prof	ECE	New Horizon College of Enng	500	
8	Lipsa Dash	Sr. Asst. Prof	ECE	New Horizon College of Enng	500	
9	Siddalingesh.Bandi	ASSOC. Prof.	ECE	CoAT	500	
10	KALPA.M.	Ass. Prof	TE	Vemana IT	500	
11	VIKAS.S	STUDENT	ECE	KSSEM	500	

	FACULTY NAME	DESIGNATION	DEPT	CLG	Amount	Sign.
12	JYOTI G. TEGGJNAHALI	(student) KSSEM.	EC.	K.S.SEM.	500	Motisk
13	SANJUKUMAR	Student (SIR MVIT)	EEF	SIR MVIT	500/-	ksanjika
14	HANUMANTHAPPA S.N	Asst. Prof LIBRARIAN	FRCE	UBDTCE	500/-	
15	NAVEEN KUMAR K	Tech. Consultant CBK Infotech Ltd			500/-	KVK
16	MRS. SUREKHA. R. GONDKAR	BMSIT & M Yelahanka	TE	ASSO. Prof	₹500/-	S Gondkar
17	Mrs Shilpa . Karpuumath	MTech	EC	Student	500/-	Shilpa
18	Shanthala . Gm	Associate	ECE	KSSEM	300/-	paid
19	Dinesh Kumar D.S	Associate	ECE	KSSEM	300/-	paid
20	Suresh . K	Asst. prof	ECE	"	300	paid
21	puneeta . S	Asst. prof	ECE	"	300	paid
22	Renuka . v . T	Asst. prof	ECE	"	300	paid
23	prathiba . S . N	Asst. prof	ECE	"	300	paid
24	Gopalakrishna C . R	Asst. prof	ECE	"	300	paid
25	Shalinishravan	Asst. prof	ECE	"	300	paid
26	vidhye . R	Asst. prof	ECE	"	300	paid
27	Manu . DK	"	"	"	300	paid
28	Chethan Sharma	"	"	"	300	paid

29	Pradeep P	ASST. Prof	ECE	KSSEM	300	paid
30	Vinay R	"	ECE	"	100	"
31	Ravikiran B A	"	"	"	100	"
32	Sanjay Nayak	"	"	"	100	"
33	Syed Waseem Tabriz	"	"	"	100	"
34	Shilpa A P	"	"	"	100	"
35	Swati Sarkar	"	"	"	100	88
36	Gumashela T J	"	"	"	100	"
37	Devika N	"	"	"	100	8
38	Dushyantha N D	"	"	"	100	"
39	<hr/>					
40			Total		13,000	13,000
41						
42						
43						
44						
45						

Amount
Collected }

$$17 \times 500 = 8500$$

$$12 \times 300 = 3600$$

$$9 \times 100 = 900$$

$$\underline{\underline{13,000}}$$

Wad *hm*
 Professor & Head
 Dept. of Electronics & Communication Engineering
 K.S. Group of Institutions
 S. School of Engineering & Management
 Bangalore-560 062.