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Antenna Engineering and its Applications	



# **Training Course Information Form**

Course Information

Course Name:	Global Maritime Distress and Safety System (G.O.C.)			
Institute/Centre:	College of Engineering and Technology		Department:	Electronics and Communication
Туре:	Program	Course	□ Workshop	
Course Duration:	□ 5 days	□ 3 days	□ 1 days	Other: 10 days
Course Conducted:	Local			
Course Venue:	Indicate: 6 days (electronic dept.) and 4 days (simulator)			
Course Language:	English	Arabic	Both	□ Other:
		Course L	Description	
Course Outlines:				
- Introduct Principle	ion.	adia communi	options	

- Principles of maritime radio communications.
   GMDSS communication systems.
- Other GMDSS equipment.
- Distress alerting.
- Miscellaneous skills and operation procedures for general communications.
- Assessment and discussion.

#### **Course Objectives:**

A trainee successfully completing this course and passing the prescribed examination will be enabled to efficiently operate the GMDSS equipment, and to have primary responsibility for radio communications during distress incidents. Given the severe problems being experienced in the GMDSS as a result of the large number of false distress alerts that now occur, training will also be provided in techniques to avoid the unintentional transmission of false alerts and the procedures to use in order to mitigate the effects of false distress alerts following unintentional transmission. Learning outcomes:

- Ability to efficiently operate the GMDSS equipment.
- Primary responsibility for radio communications during distress incidents.
- Avoid the unintentional transmission of false alerts.

Course includes:	l 🗖 Tutorial	Laboratory	U Workshop	□ Site Visit	
Course Prerequisites	:				
None					
Who shou	ld attend:				
- Maste - Radio	er of ship. ) officers.	- Deck of - Radio o	ficers. operators.		
<b>Course References:</b>					
- I.M.O. Mod - GMDSS har - STCW code - Internationa	el course. nd book. e. al convention for th	- Master plane - Standard mar - MERSAR ma e SOLAS 1974, a	of the shore ba ine communica nual. as amended.	sed facilities fo ation phrases.	r the GMDSS.
<b>No. of Participants</b> / 5-10	<b>course:</b>	5 🗆	115-20	other:	
Qualifications of	Participants:				
- Higher - Averag	education. e English.	- Little knov - Elementar	wledge of marit y computer ski	ime radio comı lls.	nunication.
No. of Lecturer:	□2		3		
No. of Assistance:	2		13		
		Course Facili	ties		
White Board Books	V. ProjectorHandouts	Data show Dependence Point Poi	W D	Manual Other:	Handouts
		Course Evalua	tion		
<ul><li>Written Examina</li><li>Delegates Partici</li></ul>	tion 🛛 Written R	eport(s) 🛛 Ora	al Presentation	Attendance	
<b>Certificate Issue:</b> Local P	remises	AASTMT	Intern	ational	

		Course Registration			
Registration:	AAST Admission Re	egistration	Online	Given the other:	
Sponsor:	Individual		Funded By: different organizations		
Fee's:	L.E. 990	\$. 300	Other: \$ 60	00 ( for funded)	
Documents required:	Registration form	□ ID/Passport copy	Photo		



# Training Course Information Form

#### **Course Information**

Course Name:	Global Maritime Distress and Safety System (maintenance)				
Institute/Centre:	College of Engineering and Technology		Department:	Electronics and Communication	
Туре:	Program	Course	Workshop		
Course Duration:	□ 5 days	□ 3 days	□ 1 days	Other: 10 days or 15 days	
Course Conducted:	Local		□ International		
Course Venue:	8 days (electr	onic dept.) and	Indicate: 7 days (simulator	)	
Course Language:	English	Arabic	Both	• Other:	

**Course Description** 

**Course Outlines:** 

- Analog and digital Communication.
- Antennas and wave propagation.
- Electronic components and circuits.
- GMDSS console connections
- GMDSS Batteries and power supplies.
- GMDSS error codes.
- GMDSS software maintenance.
- GMDSS fault detection.

#### **Course Objectives:**

A trainee successfully completing this course and passing the prescribed examination will be enabled to efficiently maintenance the GMDSS equipment, and to have primary responsibility for radio communications equipment. Training will also be apple to avoid the troubles in both software and hardware in the GMDSS equipment.

#### Learning outcomes:

<ul> <li>Ability to efficiently maintenance the GMDSS equipment.</li> <li>Ability to efficiently detect the troubles and repair the GMDSS equipment.</li> </ul>					
Course includes: Theoretical Tutorial Laboratory Workshop Site Visit					
Course Prerequisites:					
- GMDSS (GOC) certificate.					
Who should attend:					
- Electronic radio officers Maintenance officers.					
Course References:					
<ul> <li>I.M.O. model course.</li> <li>GMDSS hand book.</li> <li>Service manuals of GMDSS equipment.</li> <li>Service manuals of GMDSS equipment.</li> <li>Newkirk, David and Karlquist, Rick (2004). Mixers, modulators and demodulators. In D. G. Reed (ed.), <i>The ARRL Handbook for Radio Communications</i> (81st ed.), Newington: ARRL. <u>ISBN 0-87259-196-4</u>.</li> <li>Etc Larry .d.simmons etc Floyd L.ace III Antennas and wave propagation 1995.</li> </ul>					
No. of Participants/course: 5-10					
Qualifications of Participants:					
<ul> <li>Knowledge of maritime radio communication.</li> <li>Good English.</li> <li>Good computer skills.</li> <li>Maintenance experience.</li> </ul>					
No. of Lecturer: $\square 1$ $\square 2$ $\square 3$					
No. of Assistance: $\Box 1$ $\Box 2$ $\Box 3$					
Course Facilities					
White BoardV. ProjectorData showPCManualHandoutsBooksHandoutsFlip chartsS/WOther:					
Course Evaluation					
<ul> <li>Written Examination</li> <li>Written Report(s)</li> <li>Oral Presentation</li> <li>Attendance</li> <li>Delegates Participation</li> </ul>					
Certificate Issue: Local Premises AASTMT International					
Course Registration					
This form should be completed by the accountable who conduct courses inside or outside <b>A.R.E</b> Page 7 of 43					

Registration:	AAST Admission Re	gistration	Online	□ Other:
Sponsor:	□Individual		Funded By: di	fferent organizations
Fee's:	□ L.E.	\$. 1000 for 10 days &1200 for 15 days	Other:	
Documents required:	Registration form	□ ID/Passport copy	Photo	



# **Training Course Information Form**

#### **Course Information**

Course Name:	Global Maritime Distress and Safety System (refreshment)				
Institute/Centre:	College of Engineering and Technology		Department:	Electronics and Communication	
Туре:	Program	Course	U Workshop		
Course Duration:	<b>5</b> days	□ 3 days	□ 1 days	□Other:	
Course Conducted:	Local		□ International		
Course Venue:	3 days (electro	onic dept.) And	Indicate: 2 days (simulator)	)	
Course Language:	English	□ Arabic	Both	Other:	

**Course Description** 

**Course Outlines:** 

- GMDSS communication systems.
- Other GMDSS equipment.
- Distress alerting.
- Miscellaneous skills and operation procedures for general communications.
- Assessment and discussion.

#### **Course Objectives:**

A trainee successfully completing this course and passing the prescribed examination will be enabled to efficiently operate the GMDSS equipment, and to have primary responsibility for radio communications during distress incidents. Given the severe problems being experienced in the GMDSS as a result of the large number of false distress alerts that now occur, training will also be provided in techniques to avoid the unintentional transmission of false alerts and the procedures to use in order to mitigate the effects of false distress alerts following unintentional transmission.

Learning outcomes:

- Ability to efficiently operate the GMDSS equipment.
- Primary responsibility for radio communications during distress incidents.
- Avoid the unintentional transmission of false alerts.

<b>Course includes:</b> Theor	retical 🗖 Tu	torial 🚺 📕	Laboratory	Gamma Workshop	□ Site Visit		
Course Prerequisites:							
GMDSS (GOC) certificate							
Who should attend:							
- Maste - Radio	er of ship. o officers.		- Deck office - Radio opera	rs. ators.			
Course References:							
- I.M.O. Model ( - GMDSS hand - STCW code. - International c	course. book. onvention for t	- Master pl - Standard - MERSAF the SOLAS 19	ane of the sh marine com R manual. 974, as amen	ore based facili munication phr ded.	ties for the GMDSS ases.	5.	
No. of Participants/co	urse: □5-10	□10-15	<b>□</b> 15-20	other:	10-20		
Qualifications of Part	icipants:						
- Higher educati - Average Englis	on. sh.	- Little kno - Elementa	wledge of m ry computer	aritime radio co skills.	ommunication.		
No. of Lecturer:	2		3				
No. of Assistance:	2		3				
		Course	Facilities				
White Board Books	V. Projector Handouts	□Data show □Flip charts	□ PC ■ S/W	Manual Other:	Handouts		
		Course E	Evaluation				
<ul><li>Written Examination</li><li>Delegates Participation</li></ul>	on 🛛 Written ation	n Report(s)	Oral Prese	entation Atte	endance		
Certificate Issue:	al Premises	A	ASTMT	International	ional		

		Course Registration		
Registration:	AAST Admission Re	egistration	Online	□ Other:
Sponsor:	Individual		Funded By:	different organizations
Fee's:	L.E. 495	\$. 150	📕 Other: \$ 30	0 ( for funded)
Documents				
required:	Registration form	□ ID/Passport copy	Photo	



# **Training Course Information Form**

# **Course Information**

Course Name:	Global Maritime Distress and Safety System (R.O.C.)				
Institute/Centre:	College of Engineering and Technology		Department:	Electronics and Communication	
Туре:	Program	Course	□ Workshop		
Course Duration:	□ 5 days	□ 3 days	□ 1 days	Other: 10 days	
Course Conducted:	Local		□ International		
Course Venue:	6 days (electr	onic dept.) and	4 days (simulator	)	
Course Language:	English	Arabic	Both	□ Other:	

1/1701/1701/21/21/01/1/1701/170

**Course Description** 

**Course Outlines:** 

- Introduction.
- Principles of maritime radio communications.
- GMDSS communication systems.
- Other GMDSS equipment.
- Distress alerting.
- Miscellaneous skills and operation procedures for general communications.
- Assessment and discussion.

#### **Course Objectives:**

A trainee successfully completing this course and passing the prescribed examination will be enabled to efficiently operate the GMDSS equipment on board ship sailing in coastal areas, and to have primary responsibility for radio communications during distress incidents. Given the severe problems being experienced in the GMDSS as a result of the large number of false distress alerts that now occur, training will also be provided in techniques to avoid the unintentional transmission of false alerts and the procedures to use in order to mitigate the effects of false distress alerts following unintentional transmission.

This form should be completed by the accountable who conduct courses inside or outside A.R.E

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Learning outcomes:

- Ability to efficiently operate the GMDSS equipment on board ship sailing in coastal areas.
- Primary responsibility for radio communications during distress incidents in coastal areas.
  Avoid the unintentional transmission of false alerts.

Course includes:	al 🗖 Tutorial	Labora	tory 🗖 Worl	kshop [	Site Visit
<b>Course Prerequisites</b>	:				
None					
Who should attend	:				
<ul> <li>Master of ship.</li> <li>- Deck officers.</li> <li>- Radio operators.</li> </ul>					
Course References:					
<ul> <li>I.M.O. Model course.</li> <li>GMDSS hand book.</li> <li>STCW code.</li> <li>International convention for the SOLAS 1974, as amended.</li> </ul>					
No. of Participants/o	c <b>ourse:</b> 5-10	10-15	□15-20	Dothe	r:
Qualifications of Pa	rticipants:				
- Litt - Ave	le knowledge of m crage English.	naritime radi - El	o communicatio ementary comp	on. outer skills	
No. of Lecturer:	2	3			
No. of Assistance:	2	□ 3			
		Course 1	<i>Facilities</i>		
White Board Dooks	<ul><li>V. Projector</li><li>Handouts</li></ul>	□Data show □Flip charts	□ PC S/W	Manu Other	Handouts
		Course E	valuation		
<ul> <li>Written Examina</li> <li>Delegates Partici</li> </ul>	tion 🛛 Written pation	Report(s)	Oral Presenta	ation	Attendance
<b>Certificate Issue:</b>	ocal Premises		ASTMT	□ Interr	ational

		Course Registration		
Registration:	AAST Admission Re	egistration	Online	□ Other:
Sponsor:	Individual		Funded By:	different organizations
Fee's:	L.E. 990	\$. 300	Other: \$ 60	0 ( for funded)
Documents required:	Registration form	□ ID/Passport copy	Photo	



# **Training Course Information Form**

# **Course Information**

Global Maritime Distress and Safety System (updating				
College of Eng Technology	gineering and	Department:	Electronics and Communication	
Program	Course	Gamma Workshop		
5 days	□ 3 days	□ 1 days	□ Other:	
Local				
2 days (electro (examination	onic dept.) And centre)	Indicate: 2 days (simulator	) and 1day	
English	□ Arabic	Both	Given the other:	
	Globa College of Eng Technology Program 5 days Cocal Cocal Cocal Cocal Cocal Cocal Cocal Cocal Cocal Cocal Cocal Cocal Cocal Cocal College of Eng College of	Global Maritime Distriction Distriction   College of English   College of English   College of English   College of English   Maritime Distriction   College of English   Maritime Distriction   College of English   Maritime Distriction	Global Maritime Distress and Safet   College of Engineering and Technology Department: Department:   Program Course Workshop   Program Ourse Workshop   5 days 3 days 1 days   Local International Indicate:	

Course Description

**Course Outlines:** 

- GMDSS communication systems.
- Other GMDSS equipment.
- Distress alerting.
- Miscellaneous skills and operation procedures for general communications.
- Assessment and discussion.

#### **Course Objectives:**

A trainee successfully completing this course and passing the prescribed examination will be enabled to efficiently operate the GMDSS equipment, and to have primary responsibility for radio communications during distress incidents. Given the severe problems being experienced in the GMDSS as a result of the large number of false distress alerts that now occur, training will also be provided in techniques to avoid the unintentional transmission of false alerts and the procedures to use in order to mitigate the effects of false distress alerts following unintentional transmission. Learning outcomes: - Ability to efficiently operate the GMDSS equipment. - Primary responsibility for radio communications during distress incidents. - Avoid the unintentional transmission of false alerts. **Course includes:** Theoretical □ Tutorial Laboratory □ Workshop □ Site Visit **Course Prerequisites:** - GMDSS (GOC) certificate. - GMDSS (GOC) license. Who should attend: - Deck officers. - Master of ship. **Course References:** - I.M.O. Model course - Master plane of the shore based facilities for the GMDSS. - GMDSS hand book. - Standard marine communication phrases. - STCW code. - MERSAR manual. - International convention for the SOLAS 1974, as amended. No. of Participants/course: other: 10-20 **□**5-10 **1**10-15 **1**15-20 **Qualifications of Participants:** - Higher education. - Little knowledge of maritime radio communication. - Average English. - Elementary computer skills. No. of Lecturer: 2 **3**  $\Box 1$ No. of Assistance:  $\Box 1$ 2 **□** 3 **Course Facilities** Manual White Board **V**. Projector Data show  $\Box$  PC □ Handouts Handouts Books □Flip charts S/W **Other**: Course Evaluation □ Written Examination □ Written Report(s) • Oral Presentation Attendance Delegates Participation **Certificate Issue:** AASTMT □ International □ Local Premises

		Course Registration		
Registration:	□AAST Admission Re	egistration	Online	Other: examination centre
Sponsor:	Individual		Funded By:	different organizations
Fee's:	L.E. 550	<b>\$</b> . 160	Other: \$ 32	20 ( for funded)
Documents required:	Registration form	□ ID/Passport copy	Photo	



# **Training Course Information Form**

### **Course Information**

Course Name:	Environmen	ital Managen	nent Systems Audi	tor / Lead Auditor
Institute/Centre:	Productivity &Quality Institute		Department:	Training Department
Туре:	Program	☑ Course	Workshop	Training Department
Course Duration:	☑ 5 days	3 days	□ 1 days	□ Other:
Course Conducted:	Local		✓ International Salutional Indicate:	audi Arabia
Course Venue:	AASTMT- Miai	ni		
Course Language:	English	Arabic	Both	<b>Other:</b>
		Course 1	Description	
<b>Course Outlines:</b>				
<ul> <li>Environmental</li> <li>Implementation</li> <li>Environmental</li> <li>Audit Reporting</li> <li>Conclusion and</li> </ul>	Management System and Operation Audit Planning and g and Follow-up Reflection	n. Preparation		

#### **Course Objectives:**

- Describe the purpose of an EMS and explain the principles, processes and techniques used for the assessment and management of environmental aspects and impacts, including the significance of these for EMS auditors.
- Explain the purpose, content and interrelationship of ISO 14001, the ISO 14000 series guidance standards, and the legislative framework relevant to an EMS.
- Explain the role of an auditor to plan, conduct, report and follow up an audit in accordance with ISO 19011.

#### Learning outcomes:

 Undertake the role of an auditor to plan, conduct, report and follow up an audit in accordance with ISO 19011 and by interpreting the requirements of ISO 14001

Course includes:	☐ Tutorial	Laboratory	Workshop	□ Site Visit
Course Prerequisites:				
None				

#### Who should attend:

- Internal auditors
- Environmental managers

EmployeesHead of department

Course	<b>References:</b>
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No. of Participa	nts/course:	<b>1</b> 10-15	<b>1</b> 15-20	Other:
Qualifications of	f Participants:			
<ul><li>Higher educat</li><li>Environmenta</li></ul>	ion l awareness	<ul><li>Teamwor</li><li>Average 1</li></ul>	k skills English	
No. of Lecturer:	<b>1 2</b>	□3		
No. of Assistance	e: 🖬 1 🗖 2	□3		
		Course Facilities		
<ul><li>☑ White Board</li><li>□ Books</li></ul>	d ☑ V. Projector ☑ ☑Flip charts □	Data show Dec S/W Dother:	Man	ual I Handouts
		Course Evaluation	n	
<ul><li>Written Exar</li><li>Delegates Pa</li></ul>	nination 🛛 Written Re	eport(s) 🗹 Oral Pr	resentation	Attendance
Certificate Issue:	Local Premises	AASTMT	. ∎ Int	ernational
		Course Registratio	n	
• , ,•	AAST Admission R	egistration	Online	□ Other:
egistration:			Funded F	Sv.
egistration: ponsor:	Individual			<i>.</i>
egistration: ponsor: ee's:	☐ Individual ☑ L.E2400	□\$	□ Other:	

	ab Academy	for Science, T	Cechnology and M	aritime Transport
1 A A A A A A A A A A A A A A A A A A A	Trainin	g Course	e Informati	on Form
		Course In	nformation	
Course Name:				
nstitute/Centre:			Department:	
ype:	Program	Course	□ Workshop	
Course Duration:	5 days	3 days	□ 1 days	□ Other:
Course Conducted:	□ Local		International Indicate:	
Course Venue:				
Course Language:	English	□ Arabic	Both	• Other:
		Course L	Description	
Course Outlines:			-	
Course Objectives:				
Learning outcomes				
Learning outcomes				
Learning outcomes:	:			
Learning outcomes				
Learning outcomes:	:			
Learning outcomes: Course includes: 🏾	: Theoretical	☐ Tutorial	Laboratory	Workshop 🗖 Site Visit

Who should attend	:			
Course References:				
No. of Participants/	<b>course: □</b> 5-10	<b>1</b> 10-15	□15-20 □Other	•
Qualifications of Pa	articipants:			
No. of Lecturer:	1 •2	3		
No. of Assistance:	1 2	□3		
		Course Facilities		
<ul><li>White Board</li><li>Books</li></ul>	<ul><li>V. Projector</li><li>Handouts</li></ul>	□Data show □ PC □Flip charts □ S/W	Manual Other:	Handouts
		Course Evaluation		
<ul><li>Written Examin</li><li>Delegates Partic</li></ul>	ation 🛛 Writter	n Report(s) 🛛 Oral Pre	esentation 🛛 Attendance	2
Certificate Issue:	Local Premises	□ AASTMT	□ International	
		Course Registration		
Registration:	AAST Admissio	on Registration	□ Online □ Oth	ner:
Sponsor:	Individual		□ Funded By:	
Fee's:	□ L.E	□ \$	• Other:	
Documents required:	□ Registration for	rm ID/Passport copy	Department Photo	



# Training Course Information Form

### **Course Information**

Course Name:		Wireless Com	vorks	
Institute/Centre:	College of Eng	ineering & Tech.	Department:	Electronics & Communications
Туре:	Program	□ Course	Workshop	
Course Duration:	☑ 5 days	□ 3 days	□ 1 days	□ Other:
Course Conducted: Course Venue:	Local AASTN	IT – Abu Kir	☑ International	
Course Language:	English	□ Arabic	Both	□ Other:

#### Course Description

#### **Course Outlines:**

- . Fundamentals of wireless Communications
- . Physical and MAC Layers design
- . 802.11 networks and their simulation
- . Hybrid wireless netowrks

#### **Course Objectives:**

- . Apply networking theory to wireless communication systems.
- . Investigate performance of different wireless communication networks
- . Design small, medium and large scale wireless networks.

- . Understanding the concept of wireless communication networks
- . Design and simulation of Different Types of wireless communication networks

Course includes:  Theoretical	Tutorial	✓ Laboratory	Workshop	□ Site Visit
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### **Course Prerequisites:**

Basic Communication Networks

#### Who should attend:

Field Engineers, Graduate students, last year undergraduate students

Lecture not	tes submitted to stude	ents in class.		
No. of Participa	ants/course: □5-10	<b>L</b> 10-15	<b>1</b> 15-20	Dother:
Qualifications	of Participants:			
<ul> <li>Higher e</li> </ul>	ducation or Undergra	duate • Teamw • Good i	vork skills n English	
No. of Lecturer		□3		
No. of Assistan	<b>ce: □</b> 1 <b>□</b> 2	□3		
		Course Facilit	ies	
<ul><li>☑ White Boa</li><li>✓ Books</li></ul>	rd U. Projector Flip charts		☑ Ma	nual 🛛 Handouts
		Course Evaluat	ion	
<ul><li>Written Exa</li><li>Delegates P</li></ul>	amination <b>v</b> Written articipation	Report(s) I Oral Project	Presentation	Attendance
Certificate Issue	: D Local Premises	✓ AASTN	AT 🗖 In	ternational
		Course Registra	tion	
Registration:	■AAST Admission Re	gistration	Online	□ Other:
Sponsor:	Individual		□ Funded By:	8000 L.E. Egyptian Company
Fee's:	L.E. 800	Ser non Equation	□ Other: 2000	\$ Non Equation Company
Documents required:	Registration form	■ ID/Passport copy	Photo	



# **Training Course Information Form**

Course Information

	GSM System Engineer and air interface				
nstitute/Centre:	College of Engi	neering & Tech.	Department:	Electronics & Communications	
Гуре:	Program	□ Course	□ Workshop		
Course Duration:	5 days	□ 3 days	1 days	□ Other:	
Course Conducted: Course Venue:	Local AASTM	T – Abu Kir	☑ International		
Course Language:	English	□ Arabic	□ Both	<b>Other:</b>	
. Identify the form . Identify typical (	at of the air in GSM site confi	terface such as gurations	TDMA		
Course Objectives	wledge on the	operation of G	SM systems		

- . Understanding the concept of cellular communication networks
- . Design and simulation of GSM air interface

Course includes:	Tutorial	Laboratory	Gamma Workshop	□ Site Visit	
Course Prerequisites:					
None					

Who should attend:

Field Engineers, Graduate students, last year undergraduate students

Lecture not	tes submitted to st	udents in	class.		
No. of Particip	ants/course: □5-1	0	☑10-15	□15-20	Other:
Qualifications	of Participants:				
	■ High educ	er ation			<ul> <li>Teamwor k skills</li> </ul>
No. of Lecture		2	□3		
No. of Assistan	<b>ce:</b> ⊠1 □2	2	□3		
		C	ourse Facilities	ç	
✓ White Boa ✓ Books	ITI ↓ V. Projector □Flip charts	$\Box \checkmark S$	a show ✓ PC S/W □Other:	⊻ M :	anual I Handouts
<ul><li>Written Exa</li><li>Delegates P</li></ul>	amination <b>V</b> Wri Participation	tten Repo	rt(s) ☑ Oral P ☑ Project	resentation	Attendance
Certificate Issue	: Local Premises		✓ AASTMT	r 🗆 I	nternational
		Co	urse Registratio	on	
Registration:	■AAST Admission	n Registrat	ion	Online	□ Other:
Sponsor:	Individual			Given Funded By	r: 8000 L.E. Egyptian Company
Fee's:	L.E. 800 For Egyptiz	an Fo	200 or non Egyptian	<b>Other:</b> 200	0 \$ Non Egyptian Company
Dogumonta	i or Egypti		25JPuun		Lion Desprian Company



# **Training Course Information Form**

**Course Information** 

Course Name:		Introduction	n to Electronic C	ircuits
Institute/Centre:	College of Eng	gineering & Tech.	Department:	Electronics and Communications Engg.
Туре:	Program	Course	Workshop	
Course Duration:	☑ 5 days	3 days	1 days	□ Other:
Course Conducted: Course Venue:	Local AASTN	IT – Abu Kir	☑ International	
Course Language:	English	Arabic	D Both	□ Other:
		Course L	Description	
<b>Course Outlines:</b>				
Digital integrated     Digital integrated     Electronic circuit     To get a good und     To understand Bip     To get a good und     To get a good und     To get a good und     Introduction to Electronic circuit	erstanding of lerstanding of lerstanding of lerstanding of lerstanding of ectronic circui	semiconductor SFET transistor Analog electro Digital integra ts for commun	devices. rs and Operational onic circuits. ted circuits. ication.	l Amplifiers.
Learning outcomes:				
. Understanding o . Understanding o . Understanding o	f Electronic de f analog and d f Electronic ci	evices and circ ligital Electron rcuits for com	uits. ic circuits. munication.	
Course includes:	Theoretical	Tutorial	Laboratory	□ Workshop □ Site Visit
<b>Course Prerequisites</b>	:			

\_\_\_\_\_

#### Who should attend:

All those interested in Electronic Circuits.

Course Reference	ces:					
1. Adel S. S	edra & Kenneth C. S	mith, <i>Microelect</i>	ronic Circuits,	5 <sup>th</sup> Edition, 20	)04.	
No. of Participa	nnts/course: □5-10	□10-15	∎15-20	□Othe	r:	
Qualifications of	of Participants:					
<ul> <li>Higher edu</li> </ul>	ucation	■ Te ■ Av	amwork skills erage English			
No. of Lecturer	<b>: □</b> 1 <b>□</b> 2	□3				
No. of Assistance	<b>ce:</b> □1 <b>□</b> 2	□3				
		Course Faci	ilities			
<ul><li>☑ White Boar</li><li>✓ Books</li></ul>	rd ☑ V. Projector □Flip charts	□ Data show ✓ □ □ S/W □ 0	PC 🔽	a Manual	☑ Handouts	
		Course Evalı	uation			
☑ Written Exa ☑ Delegates Pa	mination D Writter articipation	Report(s) 🗹 C	Oral Presentation	Attendance 🗹	ce	TT CUTT
Certificate Issue:	Local Premises	✓ AAS	TMT [	☐ International		
		Course Regist	tration			0
<b>Registration:</b>	■AAST Admission Re	gistration	Online	□ Other	:	C
Sponsor:	Individual		Funded	By: 10000 L.E.	'ompany	
Fee's:	L.E. 800 For Egyptian	□ \$ 200 For non Egypti	Other:	3000 \$ Non Egypti	ian Company	
Documents required:	□ Registration form	■ ID/Passport cop	by 🗖 Photo			

Training Course Information form



# Training Course Information Form

**Course Information** 

Institute/Centre: Type: Course Duration: Course Conducted: Course Venue: Course Language:	College of Eng ☐ Program ☐ 5 days ☐ Local AASTM	ineering & Tech Course 3 days	<ul> <li>Department:</li> <li>Workshop</li> <li>1 days</li> <li>International</li> </ul>	Electronics and Communications Engg.
Type: Course Duration: Course Conducted: Course Venue: Course Language:	<ul> <li>Program</li> <li>5 days</li> <li>Local</li> <li>AASTM</li> </ul>	Course	<ul> <li>□ Workshop</li> <li>□ 1 days</li> <li>☑ International</li> </ul>	□ Other:
Course Duration: Course Conducted: Course Venue: Course Language:	<ul> <li>↓ 5 days</li> <li>↓ Local</li> <li>▲ AASTM</li> </ul>	□ 3 days	□ 1 days ☑ International	□ Other:
Course Conducted: Course Venue: Course Language:	Local AASTN	TT AL	☑ International	
Course Language:		11 – Adu Kir		
	English	Arabic	Both	□ Other:
		Course L	Description	
Course Outlines:				
. Thin-Film solar c . Photovoltaic mod . Applications.	ells. Jules and syste	ems.		
Course Objectives . To get a good under . To understand sola . To get a good under . To get a good under . To understand som	erstanding of r radiation an erstanding of S rstanding of H we of the appli	Semiconducto d solar cells. Silicon, GaAs Photovoltaic n cations of Pho	or materials. , and Thin-Film so nodules and system ptovoltaics.	lar cells. s.
Learning outcomes:				
. Understanding of	semiconduct	or materials a	nd solar cell princi	ples.

anning Course Information form

All those interested in Photovoltaic Cells and Systems.

1. C. Hu, So	lar cells and applicat	tions, McGraw-Hill, 1	997.	
No. of Particip	ants/course:	□10-15	□15-20	□Other:
<ul> <li>Higher ed</li> </ul>	ucation	<ul><li>Teamw</li><li>Average</li></ul>	ork skills e English	
No. of Lecture No. of Assistan	$\mathbf{I}$ $\mathbf{I}$ $\mathbf{I}$ $\mathbf{I}$ $\mathbf{I}$ $\mathbf{I}$ $\mathbf{I}$ $\mathbf{I}$	□3 □3		
		Course Facilities		
<ul><li>☑ White Boa</li><li>✓ Books</li></ul>	ard  ☑ V. Projector □Flip charts	□ Data show ✓ PC □ S/W □ Other:	🗹 Ma	nual 🛛 Hando
		Course Evaluation	n	
Certificate Issue	: 🗆 Local Premises	☑ AASTMI		ternational
Certificate Issue Registration:	∴ □ Local Premises ■AAST Admission Re	☑ AASTMT <i>Course Registratio</i> egistration	T Ir n Online	ternational
Certificate Issue Registration: Sponsor: Fee's:	<ul> <li>AAST Admission Re</li> <li>Individual</li> <li>L.E. 800 For Egyptian</li> </ul>	<ul> <li>☑ AASTMT</li> <li><i>Course Registratio</i></li> <li>egistration</li> <li>□ \$ 200 For non Egyptian</li> </ul>	<ul> <li>Ir</li> <li>Ir</li> <li>Online</li> <li>Funded By:</li> <li>Other: 3000</li> </ul>	ternational Other: 10000 L.E. Egyptian Company \$ Non Egyptian Compan
Certificate Issue Registration: Sponsor: Fee's: Documents required:	<ul> <li>Local Premises</li> <li>AAST Admission Re</li> <li>Individual</li> <li>L.E. 800 For Egyptian</li> <li>Registration form</li> </ul>	<ul> <li>AASTMT</li> <li><i>Course Registratio</i></li> <li>egistration</li> <li>\$ 200 For non Egyptian</li> <li>ID/Passport copy</li> </ul>	<ul> <li>In</li> <li>Online</li> <li>Funded By:</li> <li>Other: 3000</li> <li>Photo</li> </ul>	ternational Other: 10000 L.E. Egyptian Company \$ Non Egyptian Compan
Certificate Issue Registration: Sponsor: Fee's: Documents required:	<ul> <li>AAST Admission Re</li> <li>Individual</li> <li>L.E. 800 For Egyptian</li> <li>Registration form</li> </ul>	<ul> <li>AASTMT</li> <li><i>Course Registratio</i></li> <li>egistration</li> <li>\$ 200 For non Egyptian</li> <li>ID/Passport copy</li> </ul>	n Ir n Online Grunded By: Other: 3000 Photo	ternational Other: 10000 L.E. Egyptian Company \$ Non Egyptian Compan
Certificate Issue Registration: Sponsor: Fee's: Documents required:	<ul> <li>AAST Admission Re</li> <li>Individual</li> <li>L.E. 800 For Egyptian</li> <li>Registration form</li> </ul>	<ul> <li>AASTMT</li> <li>Course Registration</li> <li>\$ 200 For non Egyptian</li> <li>ID/Passport copy</li> </ul>	<ul> <li>In</li> <li>Online</li> <li>Funded By:</li> <li>Other: 3000</li> <li>Photo</li> </ul>	ternational Other: 10000 L.E. Egyptian Company \$ Non Egyptian Compan
Certificate Issue Registration: Sponsor: Fee's: Documents required:	<ul> <li>AAST Admission Re</li> <li>Individual</li> <li>L.E. 800 For Egyptian</li> <li>Registration form</li> </ul>	<ul> <li>AASTMT</li> <li><i>Course Registration</i></li> <li>egistration</li> <li>\$ 200 For non Egyptian</li> <li>ID/Passport copy</li> </ul>	<ul> <li>In a line</li> <li>Online</li> <li>Funded By:</li> <li>Other: 3000</li> <li>Photo</li> </ul>	d Other: 10000 L.E. Egyptian Company Non Egyptian Compan
Certificate Issue Registration: Sponsor: Fee's: Documents required:	<ul> <li>AAST Admission Re</li> <li>Individual</li> <li>L.E. 800 For Egyptian</li> <li>Registration form</li> </ul>	<ul> <li>☑ AASTMT</li> <li><i>Course Registratio</i></li> <li>egistration</li> <li>□ \$ 200 For non Egyptian</li> <li>■ ID/Passport copy</li> </ul>	<ul> <li>In a second se</li></ul>	□ Other: 10000 L.E. Egyptian Company \$ Non Egyptian Compan
Certificate Issue Registration: Sponsor: Fee's: Documents required:	<ul> <li>E: Local Premises</li> <li>AAST Admission Re</li> <li>Individual</li> <li>L.E. 800 For Egyptian</li> <li>Registration form</li> </ul>	<ul> <li>☑ AASTMT</li> <li><i>Course Registratio</i></li> <li>egistration</li> <li>□ \$ 200 For non Egyptian</li> <li>■ ID/Passport copy</li> </ul>	<ul> <li>In</li> <li>Online</li> <li>Funded By:</li> <li>Other: 3000</li> <li>Photo</li> </ul>	ternational Other: 10000 L.E. Egyptian Company \$ Non Egyptian Compan



# Training Course Information Form

Course Information

Course Name:		Wireless Com	tworks		
Institute/Centre:	College of Engineering & Tech.		Department:	Electronics & Communications	
Туре:	Program	□ Course	Workshop		1
Course Duration:	S days	□ 3 days	□ 1 days	□ Other:	
Course Conducted: Course Venue:	Local AASTM	IT – Abu Kir	☑ International		Q
Course Language:	☑ English	□ Arabic	Both	□ Other:	

#### **Course Description**

### **Course Outlines:**

- . Fundamentals of wireless Communications
- . Physical and MAC Layers design
- . 802.11 networks and their simulation
- . Hybrid wireless netowrks

#### **Course Objectives**

- . Apply networking theory to wireless communication systems.
- . Investigate performance of different wireless communication networks
- . Design small, medium and large scale wireless networks.

#### Learning outcomes:

- . Understanding the concept of wireless communication networks
- . Design and simulation of Different Types of wireless communication networks

<b>Course includes:</b> Theoretical	Tutorial	✓ Laboratory	Workshop	□ Site Visit
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#### **Course Prerequisites:**

Basic Communication Networks

#### Who should attend:

Field Engineers, Graduate students, last year undergraduate students

Lecture not	es submitted to stude	nts in class.		
No. of Participa	ants/course: □5-10	☑10-15	<b>1</b> 15-20	Other:
Qualifications of	of Participants:			
<ul> <li>Higher e Undergrad</li> </ul>	ducation or aduate	<ul><li>Teamwo</li><li>Good in</li></ul>	rk skills English	
No. of Lecturer		□3		
No. of Assistant	<b>ce: □</b> 1 <b>□</b> 2	□3		
		Course Facilities		
<ul><li>☑ White Boa</li><li>✓ Books</li></ul>	rd V. Projector Flip charts	<ul> <li>☑ Data show ✓ PC</li> <li>☑ ✓ S/W □Other: -</li> </ul>	🗹 Ma	nual 🛛 Handouts
		Course Evaluation		
<ul><li>❑ Written Exa</li><li>☑ Delegates P</li></ul>	mination <b>v</b> Written articipation	Report(s)  ☐ Oral Pro ☐ Project	esentation	Attendance
Certificate Issue	: D Local Premises	🗹 AASTMT	🗖 In	ternational
		Course Registration	ı	
<b>Registration:</b>	■AAST Admission Re	gistration	Online	□ Other:
Sponsor:	Individual		Given Funded By:	8000 L.E. Egyptian Company
Fee's:	L.E. 800 For Egyptian	□ \$ 200 For non Egyptian	□ Other: 2000	\$ Non Egyptian Company
Documents required:	Registration form	■ ID/Passport copy	Photo	



# **Training Course Information Form**

# Course Information

Course Name:	Digital Image Processing Using Matlab®						
<b>Institute/Centre:</b> College of E		ineering & Tech.	Department:	Electronics & Communications			
Туре:	Program	□ Course	□ Workshop				
Course Duration:	☑ 5 days	□ 3 days	□ 1 days	□ Other:			
Course Conducted:Image: LocalCourse Venue:AASTMT – Abu Kir		☑ International					
Course Language:	English	□ Arabic	D Both	□ Other:			

#### Course Description

### **Course Outlines:**

- . Introduction to Matlab
- Fundamentals of digital image processing
- . Spatial-domain processing
- Frequency-domain processing
- Color Image processing
- Image compression

#### **Course Objectives**

The objective of this course is to study the fundamentals of digital image processing including; image enhancement, filtering, segmentation, and compression. The attendees will also learn how to design and implement their own imaging solutions using Matlab® to solve practical problems in image processing.

#### Learning outcomes:

- . Understanding the concept of Digital image processing
- . Design and simulation of Different Types of image enhancement and compression

	Course includes: Theoretical	Tutorial	✓ Laboratory	Workshop	Site Visit
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**Course Prerequisites:** 

EC321/EC320 Signals and systems (Communications Theory) course or equivalent

#### Who should attend:

Field Engineers, Graduate students, last year undergraduate students

Lecture not	tes submitted to stude	ents in class.				
No. of Participa	ants/course:	⊠10-1	15	15-20	Dothe	r:
Qualifications	of Participants:					
<ul> <li>Higher ed Undergrad</li> </ul>	<ul> <li>Higher education or</li> <li>Undergraduate</li> </ul>			kills lish		
No. of Lecture	r: 🗖 1 🗖 2	□3				
No. of Assistan		□3				
		Course Fa	cilities			
<ul><li>☑ White Boa</li><li>✓ Books</li></ul>	ard V. Projector Flip charts	Data show ✓ □✓ S/W	✓ PC ⊐Other:	☑ Man	ual	Handouts
		Course Eva	luation			
<ul><li>Written Exa</li><li>Delegates P</li></ul>	amination <b>v</b> Written Participation	n Report(s) 🗹 🗹 F	Oral Present Project	ation	Attendanc	ce
Certificate Issue	: 🗖 Local Premises		ASTMT	🗖 Inte	ernational	
		Course Regi	istration			
<b>Registration:</b>	■AAST Admission Re	egistration		Online	• Other	:
Sponsor:	Individual		🖵 F	Funded By: 8	8000 L.E. Egyptian C	omnany
Fee's:	L.E. 800 For Egyptian	□ \$ 200 For non Egy	D C ptian	ر 2000 Sther: 2000	Son Egyptian C	an Company
Documents required:	□ Registration form	■ ID/Passport c	сору 🗆 Р	<b>'hoto</b>		



# **Training Course Information Form**

### **Course Information**

Course Name:	Elect	<b>Electronic Circuits Analysis by Computer (PSPICE).</b>					
Institute/Centre:	College of I	College of Engineering & Tech.		Electronics and Communications Engg.			
Туре:	Program	n 🗆 Course	☑ Workshop				
<b>Course Duration</b>	: $\Box$ 5 days	☑ 3 days	□ 1 days	□ Other:			
Course Conducted:Image: LocalCourse Venue:AASTMT – Abu Kir		☑ International					
Course Language	e: 🗹 English	Arabic	D Both	□ Other:			

#### **Course Description**

### **Course Outlines:**

- . Fundamentals of DC and AC circuits.
- . Introduction to PSPICE circuit analysis program.
- . DC analysis of electronic circuits.
- . AC analysis of electronic circuits and frequency response.
- . Transient analysis of electronic circuits.
- . Parametric analysis of electronic circuits.
- . Active semiconductor devices and integrated circuits.

#### **Course Objectives**

- To get a good understanding of DC and AC circuits.
- . To understand and use PSPICE circuit analysis program.
- . To get a good understanding of DC analysis and AC analysis of electronic circuits.
- . To get a good understanding of Transient and Parametric analysis of electronic circuits.
- . Introduction to Active semiconductor devices and integrated circuits in simulation.

#### Learning outcomes:

- . Understanding of DC and AC circuits.
- . To get a good command of PSPICE circuit analysis program.

<b>Course includes:</b> Theoretical	Tutorial	Laboratory	🛛 Workshop	□ Site Visit
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### **Course Prerequisites:**

None

#### Who should attend:

All those interested in Electronic Circuit Analysis by Computers (PSPICE).

1. Obdy, OrCAD I SI ICE for Windows, vol. 1 and vol. 2, 5 Educion, 1 Tendee-Han, 2001	1. Goody,	OrCAD PSPICE for	· Windows, vol.	1 and vol. 2, 3 <sup>th</sup> Edition	, Prentice-Hall, 2001
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No. of Participa	nts/course: □5-10	<b>□</b> 10-15	□15-20 □Other:				
Qualifications o	f Participants:						
<ul> <li>Higher edu</li> </ul>	cation	<ul><li>Teamwo</li><li>Average</li></ul>	rk skills English				
No. of Lecturer:		□3					
No. of Assistanc	<b>e: □</b> 1 □2	□3					
		Course Facilities					
<ul><li>☑ White Boar</li><li>✓ Books</li></ul>	d ☑ V. Projector ☑D □Flip charts ☑ S	ata show ☑ PC S/W □Other:	Manual	Handouts			
	(	Course Evaluation					
<ul> <li>☑ Written Examination</li> <li>□ Written Report(s)</li> <li>☑ Oral Presentation</li> <li>☑ Attendance</li> <li>☑ Delegates Participation</li> </ul>							
Certificate Issue:	Local Premises	🗹 AASTMT	□ International				
Course Registration							
<b>Registration:</b>	■AAST Admission Registr	ation	□ Online □ Other: -				
Sponsor:	Individual		□ Funded By: 10000 L.E.	mpany			
Fee's:	L.E. 800	\$ 200 For non Egyptian	Other: 3000 \$ Non Egyptian	n Company			
Documents required:	□ Registration form ■ 1	D/Passport copy	Photo				



# Training Course Information Form

# Course Information

Course Name:	Integrated circuit Fabrication Technology					
Institute/Centre:	College of Engineering & Tech.		Department:	Electronics and Communications Engg.		
Туре:	Program	Course	Workshop			
Course Duration:		□ 3 days	□ 1 days	□ Other:		
Course Conducted:LocalCourse Venue:AASTMT – Abu Kir		☑ International				
Course Language:	English	Arabic	Both	□ Other:		

### **Course Description**

### **Course Outlines:**

- . Fundamentals and types of Integrated circuits, and introduction to semiconductors.
- . Preparation of metallurgical-grade and semiconductor-grade silicon.
- . Crystal growth and wafer preparation technology.
- . Photolithography and etching techniques.
- . Oxidation techniques.
- . Solid-State Diffusion and Ion-Implantation.
- . Introduction to Vacuum technology and metallization.
- . Chemical vapor deposition and sputtering.
- . Process integration (bipolar and CMOS).

#### **Course Objectives**

- . To get a good understanding of semiconductor materials.
- . To introduce crystal growth technology in electronics industries.
- . To understand basic IC fabrication steps.
- . To integrate fabrication processes in the production of integrated circuits.
- . To Introduce different types of integrated circuits.

#### Learning outcomes:

- . Understanding of semiconductor materials and preparation in electronics inductries.
- . Understanding of Integrated circuits fabrication technology.

Course includes: Theoretical	Tutorial	Laboratory	Workshop	Site Visit
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#### **Course Prerequisites:**

None

#### Who should attend:

All those interested in Integrated circuit Fabrication

1. Richard C. Jeager, "Introduction to Microelectronic Fabrication," second edition, Prentice Hall, 2002.

No. of Participa	ants/course: □5-10	<b>□</b> 10-	-15	<b>1</b> 15-20	Dothe	r:	
Qualifications of	of Participants:						
<ul> <li>Higher education</li> </ul>			Teamwo Average	rk skills English			
No. of Lecturer		□3					
No. of Assistan	<b>ce: ☑</b> 1 <b>□</b> 2	□3					
		Course F	acilities				
<ul><li>☑ White Boa</li><li>✓ Books</li></ul>	rd ☑ V. Projector □Flip charts	☑Data show □ S/W	☑ PC □Other: -	<b>2</b> M	anual	☑ Handouts	
		Course Ev	aluation				
<ul> <li>☑ Written Examination</li> <li>□ Written Report(s)</li> <li>☑ Oral Presentation</li> <li>☑ Attendance</li> <li>☑ Delegates Participation</li> </ul>							
Certificate Issue	: 🗖 Local Premises	☑ A	ASTMT		nternational		
Course Registration							<b>O</b>
<b>Registration:</b>	■AAST Admission R	egistration		Online	□ Other	•	C
Sponsor:	Individual			□ Funded By	: 10000 L.E. Egyptian C	ompany	Ì
Fee's:	L.E. 800 For Egyptian	□ \$ 200 For non Eg	yptian	<b>Other: 300</b>	0 \$ Non Egypti	an Company	
Documents required:	Registration form	■ ID/Passport	сору	Department Photo			Ĩ I



# **Training Course Information Form**

## **Course Information**

Course Name:	<b>Optical Fiber Communications</b>				
Institute/Centre:	College of Engineering & Technology		Department:	Electronics & Communications	
Туре:	Program	✓ Course	✓ Workshop		
Course Duration:	✓ 5 days	□ 3 days	□ 1 days	□ Other:	
Course Conducted:	✓ Local		✓ International Indicate: -Sy	yria, Kuwait	
Course Venue:	AASTM	IT - AbuKir			
Course Language:	English	□ Arabic	✓ Both	□ Other:	

**Course Description** 

### **Course Outlines:**

- Definition of Optical Fibers.
- Attenuation and Losses in Optical Fibers.Fault Detectors.
- Fault Detectors. - Optical Couplers.
- Optical Sources, Amplifiers and Detectors.
- All Optical Communication System.

#### **Course Objectives:**

- 1) Enhance Knowledge about Optical Fibers.
- 2) Presentation of New Technologies of Optical Fiber Communications.
- 3) Presentation of Fault Detector, Location and Repair in Optical Fiber Communications Systems.

#### Learning outcomes:

System Compone	nts.		
Tutorial	✓ Laboratory	✓ Workshop	□ Site Visit
ns Principles.			
r	System Compone	System Components. □ Tutorial ✓ Laboratory ns Principles.	System Components. □ Tutorial ✓ Laboratory ✓ Workshop ns Principles.

- Electrical Engineers (Electronics and Communications Division).

Course Referen	nces:							
- Text in Optical Fiber Communications and Lab Manual.								
No. of Particip	ants/course:	<b>√</b> 10-15	□15-20	Other:				
Qualifications	of Participants:							
- Communications Engineers.								
No. of Lecture	r: ✓1 □2	□3						
No. of Assistan	<b>ce:</b> ✓1 □2	□3						
Course Facilities								
✓ White Boa □ Books	rd U. Projector Handouts	✓ Data show ✓ PC □Flip charts □ S/W	✓ Man □Othe	ual 🛛 Handouts r:				
		Course Evaluation	n					
<ul> <li>□ Written Examination</li> <li>□ Written Report(s)</li> <li>✓ Oral Presentation</li> <li>✓ Attendance</li> <li>□ Delegates Participation</li> </ul>								
Certificate Issue: □ Local Premises ✓ AASTMT □ International								
		Course Registration	n					
<b>Registration:</b>	■AAST Admission Re	egistration	Online	□ Other:				
Sponsor:	Individual		□ Funded By: 8	8000 L.E. Egyptian Company				
Fee's:	L.E. 800 For Egyptian	\$ 200 For non Egyptian	□ Other: 2000	\$ Non Egyptian Company				
Documents required:	Registration form	■ ID/Passport copy	D Photo	-6, r Company				



# **Training Course Information Form**

# **Course Information**

Course Name:		UMTS System Engineer and air interface								
Institute/Centre	: Col	College of Engineering & Tech.		Department:	Electronics & Communications					
Туре:		Program	□ Course	U Workshop						
Course Duratio	n: 🗹	5 days	□ 3 days	□ 1 days	□ Other:					
Course Conduct Course Venue:	ted: 🗹	☑ Local AASTMT – Abu Kir		☑ International						
Course Langua	ge: 🛛 ]	English	Arabic	D Both	□ Other:					

#### Course Description

#### **Course Outlines:**

- . Describe the functionality of the core components of a UMTS network
- . State the physical and logical channels utilized by UMTS air interface
- . Identify the format of the air interface such as CDMA
- . Identify typical UMTS site configurations

#### **Course Objectives**

- . Gain practical knowledge on the operation of UMTS systems.
- . Understand the mechanisms used in the UMTS air interface

#### Learning outcomes:

. Understanding the concept of cellular communication networks . Design and simulation of UMTS air interface

Course includes: Theoretical	Tutorial	Laboratory	Workshop	□ Site Visit	

**Course Prerequisites:** 

None

#### Who should attend:

Field Engineers, Graduate students, last year undergraduate students

#### **Course References:**

Lecture notes submitted to students in class.

No. of Participa	ants/course:	<b>□</b> 10-15	<b>1</b> 15-20	Other:	Other:		
Qualifications	of Participants:						
<ul> <li>Higher education or Undergraduate</li> </ul>		<ul><li>Teamwo</li><li>Good in</li></ul>	<ul><li>Teamwork skills</li><li>Good in English</li></ul>				
No. of Lecture	r: Q1 Q2	□3					
No. of Assistan	<b>ce:</b> ☑1     □2	□3					
		Course Facilities					
<ul><li>☑ White Boa</li><li>✓ Books</li></ul>	urd U. Projector		🗹 Manua	al 🛛 Handout	ts		
		Course Evaluation	n				
<ul><li>❑ Written Exa</li><li>☑ Delegates P</li><li>Certificate Issue</li></ul>	amination I Written Participation	n Report(s)  ☑ Oral Pr ☑ Project ✓ AASTMT	esentation 🗹 A	ttendance national	Trainin		
		Course Registratio	n				
<b>Registration:</b>	■AAST Admission R	egistration	Online	□ Other:			
Sponsor:	Individual	-	□ Funded By: 80 <sup>0</sup> Eg	00 L.E. gyptian Company			
Fee's:	L.E. 800 For Egyptian	\$ 200 For non Egyptian	□ Other: 2000 \$ No	on Egyptian Company			
Documents required:	□ Registration form	<ul> <li>ID/Passport copy</li> </ul>	□ Photo	л Едуриан Сопрану	se Information form		



# Training Course Information Form

### **Course Information**

Course Name:	e Name: Antenna Engineering and its Applications					
Institute/Centre:	College of Engineering & Tech.		Department:	Electronics &Communications		
Туре:	Program	Course	Workshop			
Course Duration:	☑ 5 days	□ 3 days	□ 1 days	□ Other:		
Course Conducted: Course Venue:	☑ Local AASTMT – Abu Kir		☑ International			
Course Language:	English	Arabic	□ Both	□ Other:		

#### **Course Description**

#### **Course Outlines:**

- . Fundamental Principles of Electromagnetic Waves
- . Propagation of Electromagnetic plane waves
- . Fundamental Parameters of Antenna
- . Wire Antennas
- . Wideband Antennas
- . Higher Gain Antennas
- . Microstrip Antennas
- . Array Antennas

#### **Course Objectives**

- . To apply wave theory to uniform plane waves in different media.
- . To investigates its performance when incident on a boundary between two mediums.
- . To Introduce the various antenna types.
- . To Briefly discuss some forms of the various antenna types.
- . To Introduce the radiation characteristic requirements for many applications.
- . To Discuss the performance of some antenna types experimentally.

#### Learning outcomes:

- . Understanding of Electromagnetic Wave Propagation
- . Design, implementation, Measurement, and Simulation of Different Types of Antennas

<b>Course includes:</b> Theoretical	Tutorial	✓ Laboratory	Workshop	□ Site Visit
Course Prerequisites:				
News				

None

#### Who should attend:

All those are interesting In antennas and propagation of electromagnetic waves

4. Bal	anis, Antenna theory	analysis and d	esign, 20	005 by John V	Wiely &Son	ns, Inc.	
No. of Particip	ants/course: □5-10	<b>□</b> 10-	-15	□15-20 □Other:			
Qualifications	of Participants:						
	<ul> <li>Higher educati</li> </ul>	on			<ul> <li>Teamwork</li> <li>k skills</li> </ul>	r	
No. of Lecture	r: ☑1	□3					
No. of Assistan	ace: ☑1	□3					
		Course F	acilities				
☑ White Boa ✓ Books	ard ☑ V. Projector □Flip charts	Data show □✓ S/W	✓ PC □Other: -	<b>M</b>	anual 	Handouts	
		Course Ev	aluation				
☑ Written Exa ☑ Delegates F	amination 🛛 Writte Participation	n Report(s)	Oral Pro	esentation	2 Attendanc	e	
Certificate Issue	e: 🗖 Local Premises	✓ A	ASTMT		nternational		
		Course Reg	gistration	ı			
<b>Registration:</b>	■AAST Admission R	egistration		Online	□ Other:		
Sponsor:	Individual			Given Funded By	: 10000 L.E. Egyptian C	ompany	
Fee's:	L.E. 800 For Egyptian	Sor non Egy	votian	<b>Other:</b> 3000	0 \$ Non Egyptian CC	an Company	
Documents required:	Registration form	■ ID/Passport	copy	Photo	28, pm	<u>P</u> ·····J	