



جامعة فاروس الاسكندرية

## **Publications Template**

#	Research Title	Field	Abstract	Year of Publication Publishing		Publishing Link "URL"
1	An improved energy- efficient head election protocol for clustering techniques of wireless sensor network	WSN	Although wireless sensor networks (WSNs) have been utilized for over one decade, it is now heavily used by many modern applications such as medical observance, disaster management and environmental monitoring. This type of network suffers from limited energy and a short lifetime in addition to the low channel bandwidth. Bandwidth	2021	https://www.scie	encedirect.com/science/article/pii/S1110866521000037
Page 1 of 7 Rev. (2) Date ( <b>30-11-2019)</b>			مستوى سرية الونيقة: استخدام داخلي Document Security Level = Internal Use		نموذجC-V Template	Doc. No. ( <b>PUA–IT–P01–F07</b> ) Issue no. (2) Date ( <b>30-11-2019)</b>



PHAROS UNIVERSITY

ALEXANDRIA



	جامعة فاروس	
	major challenges	٦
	of such systems	
	due to the great	
	impact of	
	communication	
	cost on the	
	consumption of	
	nodes power.	
	Clustering has	
	been proven to be	
	one of the best	
	techniques to	
	conserve the	
	energy of WSNs.	
	LEACH (low	
	energy adaptive	
	clustering	
	hierarchy)	
	protocol is one of	
	the most	
	fundamental	
	works of WSN	
	clustering.	
	However, this	
	protocol suffers	
	from some	
	drawbacks,	
	especially in the	
	setup phase	
مسئوى سريـة الوثيقة: استخدام داخلي Page 2 of 7 Rev. (2) Date ( <b>30-11-2019)</b> Document Security Level = Internal Lisc	e Doc. No. ( <b>PUA-IT-P01-F07</b> ) Issue no. (2) Date ( <b>30-11-2019</b> )	

]	PHAROS UNIV ALEXAND	5				
			where CH is	ب الله الروين		
			selected			
			randomly. This			
			work aims to			
			enhance LEACH by			
			identifying a			
			cluster head			
			according to the			
			lowest degree of			
			consuming			
			energy. The			
			ability of this work			
			to enhance I FACH			
			while prolonging			
			the lifetime and			
			improving the			
			performance of			
			WSN.			
	Gat2Get: A		Discovering Gene			
	Novel		(GRN) gives some idea			
	Annroach		about gene pathways			
	Approach		potential applications in			
2	to Infer	BIOINFORMATICS	medicine. The essential	2023	https://	/pserj.journals.ekb.eg/article_292327.html
_	Gene		source of data for this task is the gene	2023		
	Regulatorv		expression data. High			
	Network		complexity and poor quality of gene			
	from Gene		expression data			
	Page 3 of 7	مستوى سريـة الوثيقة: استخدام داخلي			Doc. No. ( <b>PUA-IT-P01-F07</b> )	۱
Rev. (	2) Date ( <b>30-11-2019)</b>	Document Security Level = Internal Use	C-V Templatez	لمودع	Issue no. (2) Date ( <b>30-11-2019)</b>	



PHAROS UNIVERSITY

ALEXANDRIA

جامعة فاروس الاسكندرية

		س	جامعة فارو	
	- throug	hput methods like		
Activity	mic	roarray provide		
using	many	difficulties in the		
	conte	ext of the current		
Dynami	C issu	ie. A promising		
	meth	od for evaluating		
Bayesia	<b>n</b> gene	expression noisy		
Notwor	L data	to characterize		
Networ	<b>N</b> proce	esses made up of		
learning	loc	ally interacting		
	compo	onents is Bayesian		
	Ne	twork. In fact,		
	becau	se of the intricacy		
	of the	inputs and results		
	C	f the cellular		
	meci	nanism, inferring		
	GRN	from expression		
	data p	resents numerous		
	aiffic	ulties. This work		
	pr	oposes a new		
	appro	from time sories		
	GRINS	avprossion data		
	gene	expression data.		
	evte	nds the existing		
	Bay	vesian Network		
	metho	ods to include the		
	regula	tion properties of		
	gene	s to improve the		
	proc	ess of capturing		
	natu	ral classes during		
	infer	ring the relations		
	betv	veen genes. The		
	prop	osed approach is		
	evalua	ated in comparing		
	to th	e corresponding		
	tec	hniques of the		
	relate	ed works, and the		
	result	s show the ability		
Page 4 of 7	مستوى، سربة الوثيقة: استخدام داخلي		Doc. No. (PUA-IT-P01-F07)	
. (2) Date ( <b>30-11-2019)</b>	Document Security Level = Internal Use	نموذجC-V Template	Issue no. (2) Date ( <b>30-11-201</b>	.9)





جامعة فاروس الاسكندرية

	جامعة فاروس								
	I-OPC: An		of the present approach is efficient to some level to deal with such high dimensional data even without dimension reduction, but in the presence of regulatory information. Latency and energy						
3	intelligent optimal path computation system using critical path prediction and deep learning for a time- sensitive network.	DATA SCIENCES	are critical issues when working with time and power- constrained wireless sensor networks. To avoid wasting both time and energy, such systems require selecting optimal communication routes with minimum latency and energy. The energy and latency costs between sender and destination nodes are greatly affected by the occurrence of transmission holes (black hole and grey hole). Therefore, selecting the optimal path must consider the probability of transmission holes and investigate their impact on energy and latency costs. Based on these problems of silent failures, the	202	.3	https://www.sciene	cedirect.com/science/article/pii/S1110016823009274		
Rev. (2	Page <b>5</b> of <b>7</b> 2) Date ( <b>30-11-2019)</b>	مستوى سرية الوثيفة: استخدام داخلي Document Security Level = Internal Use	C-V Template	نموذج	Doc. Issue n	No. ( <b>PUA-IT-P01-F07</b> ) o. (2) Date ( <b>30-11-2019)</b>			





جامعة فاروس الاسكندرية

		عة فاروس	جام	
	current work prop i-OPC as an intel	ooses igent		
	and effective sys	tem		
	to address the	se		
	problems by			
	forecasting sourc	es of		
	such silent failu	res		
	and resolving th	em		
	before they occur	The		
	proposed method	uses		
	a customized rou	ting		
	schedule and a m	ulti-		
	objective			
	mathematica			
	optimization appr	oach		
	to rank all candi	late		
	paths between	he		
	source and destin	ation		
	nodes. In additio	n, 1-		
	OPC Implemen	is a		
	tochniquo using	loon		
	learning to predic	t the		
	energy and late			
	costs of the fut	ire		
	location for mo	vile		
	nodes. Also.	t		
	determines if t	ne		
	future locations	of		
	mobile nodes c	an		
	result in black he	oles.		
	Experiments proc	uces		
	promising result	s in		
	terms of delay, er	ergy		
	consumption, pa	cket		
	delivery rate and	hole		
توى سرية الوثيقة: استخدام داخلي Page 6 of 7	مە ( )	Templateziani	Doc. No. ( <b>PUA–IT–P01–F07</b> )	
Rev. (2) Date ( <b>30-11-2019</b> ) Document Security Level = Interna	Use C-V	remplate	Issue no. (2) Date ( <b>30-11-2019)</b>	

PHAROS UNIV ALEXAND	VERSITY DRIA	Prersity W. Mar	جامعة فاروس الاسكندرية	
	detec	روس ction rate against isting methods.	جامعه ف	
Page 7 of 7 Rev. (2) Date ( <b>30-11-2019)</b>	مستوى سريـة الوثيقة: استخدام داخلى Document Security Level = Internal Use	نموذجC-V Template	Doc. No. ( <b>PUA-IT-P01-F07</b> ) Issue no. (2) Date ( <b>30-11-2019)</b>	