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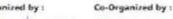
CONFERENCE PROGRAMS AND ABSTARCT

"Future energy brings the quality of human life through applied techniques and ICT Innovations"



October 02-04, 2018 Province of Bangka-Belitung Indonesia

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FOREWORD FROM GENERAL CHAIR ICECOS 2018



Welcome to ICECOS 2018,

It is with a great pleasure that we extend our warm welcome to all the participants of the 2nd International Conference on Electrical Engineering and Computer Science (ICECOS) 2018. This conference held for second times and organized by Universitas Sriwijaya. The first conference in the series was held in Palembang, South Sumatera, Indonesia August 22-23, 2017. It is a good collaboration between Universitas Sriwijaya, Universiti Teknologi Malaysia, JAIST Japan, Albaha University, Saudi Arabia, University of Technology Sydney, Australia and Universiti Teknikal Malaysia Melaka. The conference in Bangka Island has attracted 66 participants from 7 countries.

The 2nd ICECOS particularly encouraged research students and developing academics to present and to discuss new and current work in the field of communication and vehicular technologies, electronics, circuits, and systems, information technologies, pervasive computing and internet of things, and power systems. 83 selected papers were presented from 133 peer reviewed paper by reviewers drawn from the scientific committee, external reviewers and editorial board.

Finally, as the General Chair of the Conference, I would like to express my deep appreciation to all members of the Steering Committee, Technical Program Committee, Organizing Committee and Reviewers who have devoted their time and energy for the success of the event.

In the end, I hope you have enjoyed the conference and the beauty of Bangka Island.

RUNDOWN

THE 2nd INTERNATIONAL CONFERENCE ON ELECTRICAL ENGINEERING AND COMPUTER SCIENCE (ICECOS) Bangka Island, Province of Bangka-Belitung, Indonesia

Wednesday, 02 October 2018

			Wednesday, 02 October 2018	018		
		Soll Marin	na Bangka Hotel, Sol Marina 1 Room	Jarina 1 Roo	m	
No.	Session		Person in	Time		Liaison
			Charge	Allotment		Officer
1.	Registration		Event Section Committee	07.30 - 09.30		Sarifah
2	Indonesian National Anthem		Event Section Committee			Putri Defficeia
\mathfrak{C}	Chair Person's Report Speech		Event Section Committee			Namesia
4	Opening Remarks by Rector of Unsri	ıri	Event Section Committee			
2	Do'a, souvenirs for sponsor, group photos, coffee breal	otos, coffee break	Event Section Committee			
			PLENARY SESSION	NC		
No.	Keynote Speaker	Affiliation		Time	Moderator	Liaison
l –i	Prof. Dr. Zen-ichiro Kawasaki	Osaka University		09.30-10.15	Muhammad Abu Bakar Sidik, Ph.D.	Nyayu
2.	Prof. Dr. Eng. Benyamin Kusumoputro	Universitas Indonesia	esia	10.15 -11.00	Dr. Bhakti Yudho Suprapto	Latifah
3	Assoc. Prof. Dr. Razali Ngah,	Universiti Teknologi Malaysia	ogi Malaysia	11.00-11.45	Dr. Reza Firsandaya Malik	Husni, M.1.
	Break, Sholat Dzuhur, Lunch	Ozuhur, Lunch		12.00-12.45		
			PARALEL SESSION	NC		
N _O	Theme		Room	Time	Moderator	Articles
Н	Communications and Vehicular Technology	echnology	Batu Bedaun 1	13.00 – 15.24	Evizal Abdul Kadir, Ph.D	8
2	Electronics, Circuits, and Systems	tems	Batu Bedaun 2	13.00 - 19.00	Munawar Agus Riyadi, Ph.D./	18
3	Information Tehcnology #1	1	Batu Bedaun 3	13.00 –18.42	Dr. Reza Firsandaya Malik/	17
4	Information Tehcnology #2	2	Soll Marina 2	14.12 – 17.30	Sarifah Putri Raflesia, M.T.	10
2	Pervasive Computing and Internet of Thing	t of Thing	Soll Marina 2	13.00 - 14.12	Firdaus.M.Kom.	4
9	Power Systems #1		Soll Marina 1	13.00 - 19.00	Muhammad Abu Bakar Sidik, Ph.D./	18
7	Power Systems #2		Batu Bedaun 1	15.42 - 18.06	Dr. Bhakti Yudho Suprapto	8
	GALA	GALA DINNER		20.30 – 22.00		



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Application of WSNs for Detection Land and Forest Fire in Riau Province Indonesia

Paper ID: 1570472431

Evizal Abdul Kadir, Sri Listia Rosa and Ana Yulianti (Universitas Islam Riau, Indonesia)

Abstract - Riau Province is one of the area that high risk to land and forest fires due to the type of land which is peat land and flammable during summer season. Land and forest fires are badly impact not only on the biological ecosystems but on the activities and economy of local communities. This research proposes development intelligent environmental monitoring system to prevent the occurrence of land and forest fires. Wireless Sensor Networks (WSNs) use in development of this system. A monitoring system with a wide screen will install at the centre of monitoring and command centre to monitor environmental information in real time. Using WSNs technology, several smart sensors are install in the location that are very high risk for fire to get environmental data and then send to monitoring centre, because of large area to cover first phase of project 3 locations selected. Sensor base station will install in each location to collect data from WSNs and then communicate to monitoring centre use wireless communication because of the distance very far. Base station collect environmental information from all intelligent sensors deploy in the area such as temperature, humidity, haze (air quality), Carbon (Co2). Additional information for image analyse, every base station will install with High Definition (HD) camera to analyse behaviour of environmental in term of imaging. System detected indication for fire or abnormal environmental condition then an alert signal sent to authority as warning system for further action or precaution action of fire. New technology and method of sensing system and image processing as well as communication between sensor base station to data centre to make intelligent system is novelty in this research. Furthermore, all the information collected be able to share to others institution worldwide for sharing data in case required for global climate change analysis.

Keywords: WSNs; Land and Forest Fire; Sensors



INTERNATIONAL CONFERENCE

ON ELECTRICAL ENGINEERING AND COMPUTER SCIENCE 2018

October 02-04, 2018 Province of Bangka-Belitung Indonesia

CERTIFICATE OF APPRECIATION

Evizal Abdul Kadir

In recognition and appreciation of your contribution as

PRESENTER

For paper entitled:

Application of WSNs for Detection Land and Forest Fire in Riau Province Indonesia





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Evizal Abdul Kadir

In recognition and appreciation of your contribution as

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