

8th IEEE R10 HTC 2020

IEEE Region 10 Humanitarian
Technology Conference



Digital Ecosystem for Humanity



Our Partners

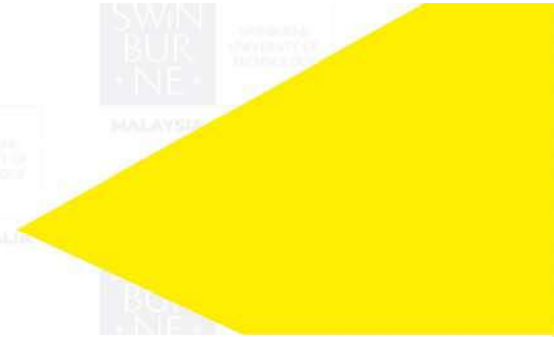




1 - 3 DECEMBER 2020 | KUCHING, MALAYSIA

IEEE R10 HTC 2020

DIGITAL ECOSYSTEM FOR HUMANITY



MALAYSIA • AUSTRALIA



30 November 2020



IEEE

SARAWAK SUBSECTION



MALAYSIA SECTION



Special Session



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Brief Bio

2020 Member, IEEE New initiative Committee
2020 Chair, Women in SIGHT Working Group
2020-22 Member, IEEE SPS Women in Signal Processing Committee
2020 Member, IEEE WIE Senior member Drive

2017,19 Communications Chair, IEEE SIGHT Steering Committee
2017 -20 IEEE PES WiP R10 Regional Representative
2017-18 Chair, IEEE WIE Workshops Subcommittee
2016 R10 WIE Coordinator/Chair
2018-20 Chair, IEEE Bangladesh Section
Founder and Advisor, IEEE WIE AG BD
Founder of SIGHT group FLASH in Bangladesh Section

- **Education:** Ph.D, ECE, Concordia University, Montreal, Canada
(Canadian Common Wealth Scholar)
- **Career:** Academia, Research and Innovation
- **Experience:** Around 20 years
- **Current Work:** Professor, EEE, BUET
- **Memberships:** IEEE PES, IAS, SSIT, SPS, EMBS, RAS, IEEE PES WiP, IEEE WIE, IEEE SIGHT

Professor Celia Shahnaz



Humanitarian Activities and Technologies
during Covid-19 Pandemic in Asia Pacific Region

Special Session



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ALP 2



The streetlights worked well throughout the night.

Dr. Then Yi Lung




Activities of IEEE Sarawak SIGHT

Special Session

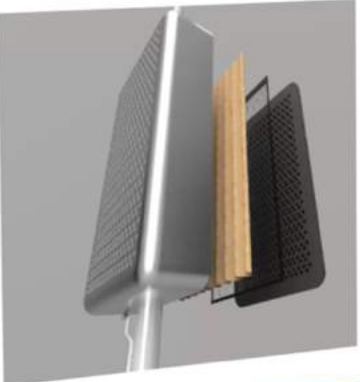


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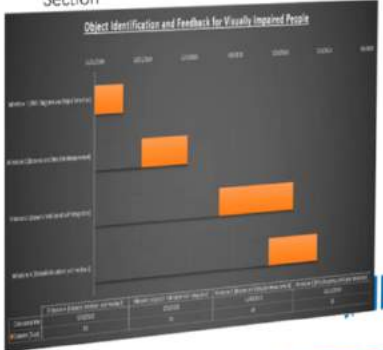
Humanitarian Technology Activities Supported in R10

TENHUMCH2019 

Project Winner : "AEROLVE" from IEEE Kerala Section



Project Winner " Object Identification and Feedback for Visually Impaired People" from IEEE SAC Karachi Section



Assoc. Prof. Jing Dong



Introduction for IEEE SIGHT

Special Session



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Prof. Shaikh Fattah



Effective Community Engagement to Design Sustainable Humanitarian Projects to Combat COVID-19

Dr. Shaikh Fattah, SMIEEE, FIEB
Education Chair, IEEE HAC
Professor, Dept of EEE, BUET

IEEE R10 HTC 2020
Humanitarian Activities Committee

Zoom 8g-16.jpg
Walton_IO Coeffi...docx
Final_report_Bent...docx
414 Submission.pdf



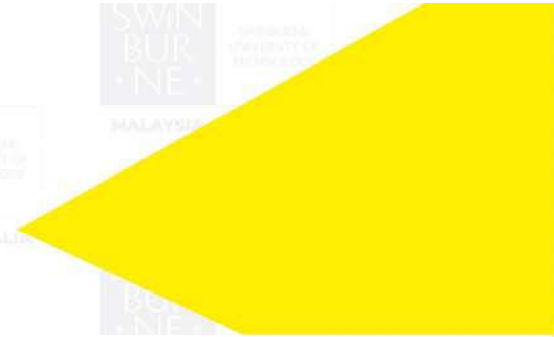
Sustainable Humanitarian Projects to Combat COVID19



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DAY 1

1 December 2020



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Opening Remarks



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Mr. Victor Wong

Chair of IEEE Sarawak Subsection 2019-2020



Assoc. Prof. Mohammad Faizal

Co-General Chair IEEE R10 HTC 2020

Opening Remarks



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Assoc. Prof Lau Bee Theng
General Chair IEEE R10 HTC 2020



Professor Akinori Nishiharas
IEEE Region 10 Director, 2019-2020

Keynote Session 1



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Assoc. Prof. Sye Loong Keoh



Internet-of-Things (IoT):
Accelerating the Smart City Revolution

Parallel Session 1

Room 1



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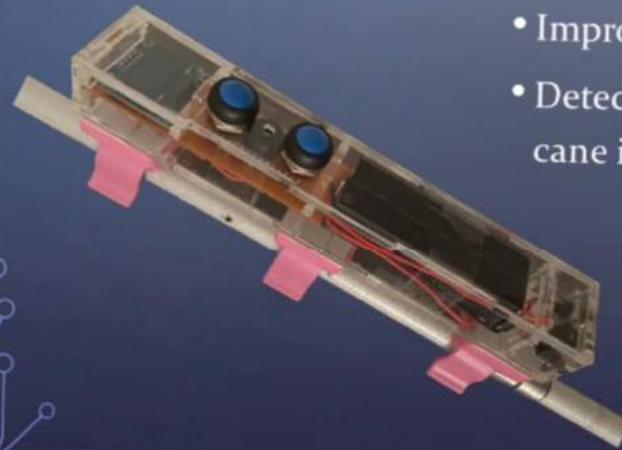
8th I
Humanitarian Technol

CaneFX - An int
learning too
visual i

D.K.X. Ling, B.T. Lau, A.

Presenter:

CaneFX - White cane learning tool



- Improve the learning experience
- Detect the motions of the white cane in real-time



Parallel Session 2

Room 2



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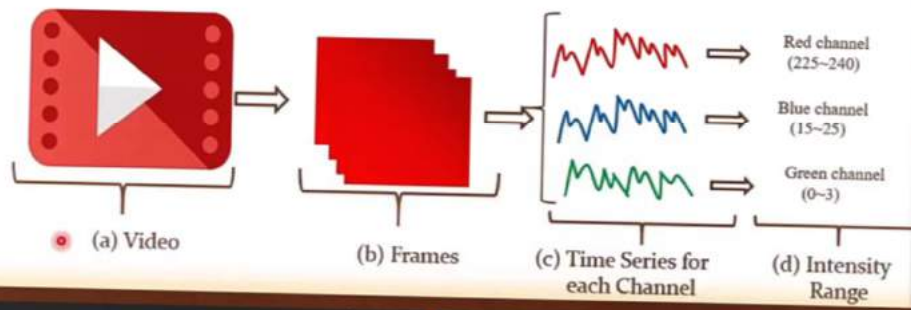
Noninvasive Blood Glucose Monitoring Using Live Video

Authors:
Jannatun Sumaiya
Md. Rakibul Hasan
Eklas Hossain

IEEE Region 10 Humanitarian

Data Preprocessing

Video Processing



Chamath Withan...

IEEE

Xiangdong Sun

Siti Saleha Hashim

KESAVAN RAGH...

Hasliza Hassan

Parallel Session 3

Room 2



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Experimental Setup

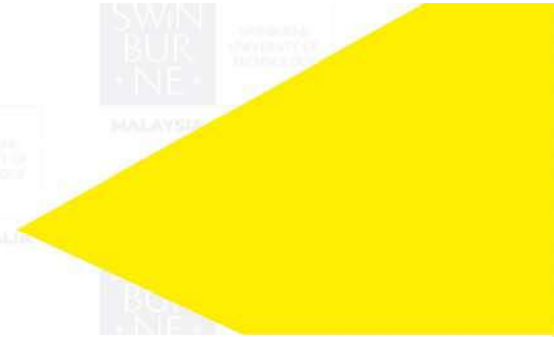
The diagram illustrates the experimental setup. It shows a **Green LED** and **SEMG** sensor connected to an **Arduino MCU**. The Arduino MCU is connected to a **Computer**. The computer processes the data through a **2nd Order IIR Bandpass Filter**, a **Continuous Wavelet Transform**, and **Spectral Subtraction** to produce **Clean PPG**. Below the diagram, there are two photographs of hardware components: a **Myoware sEMG Sensor** and a **PPG Sensor (Green LED)**. The Myoware sEMG sensor is a red PCB with various components and labels. The PPG sensor is a circular PCB with a green LED and other components.



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DAY 2

2 December 2020



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Keynote Session 2



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Dr. Surapa Thiemjarus



A Journey Towards Creating Impact
with Technology for People

Zoom Meeting

A grid of 20 Zoom meeting tiles. Each tile features a background with logos for IEEE R10 HTC 2020, IEEE SARAWAK SUBSECTION, IEEE MALAYSIA SECTION, and IEEE REGION 10. The tiles contain portraits of participants with their names at the bottom: Bee Theng Lau, Zharinith Vithanawasam, Fei Siang Tay, Mark Lee, Sutapa Thiemjarus, Sye Loong Keech, Mohammad Faizal Ahmad Fauzi, Allya-ITE, Supavadee Ramvith, Jacey Minol, Yi Lung Then, YOOT KHUAN LEE, Hasliza Hassan, Willone Lim, Guru Kiran Prabhu, Aywin Chai, Mohd Hafiz Ismail, Victor Bong, SALAUDDIN AMIN, Felicia Andayani, Min Hoe, Isaac Asante, Ronald Pascual, and KESAVAN RAGH...



HTC 2020
FOR HUMANITY

Aramvith



gies

for the 21st century



IEEE R10 HTC 2020

SWINBURNE UNIVERSITY OF TECHNOLOGY

IEEE region 10

IEEE SARAWAK SUBSECTION

IEEE MALAYSIA SECTION

IEEE SARAWAK CONVENTION BUREAU

Victo

Yi Lung Then

aliya paramita

Sin Yee Lee

ABDUL NOGRALES

End User

Haaliza Hassan

ITS_Uifahamida

Rahma Rizky Alfia

Fathiya Rahma

Huan Ting Fong









Ebtesam Ahmed...

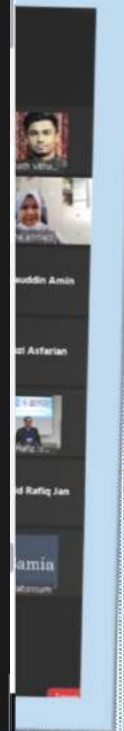
Chamath Vithan...

syeloongkeoh

Min Hoe

Mute Stop Video Security Participants 15 Chat Share Screen Record Reactions End

 <p>Puzi Abdullah</p>	 <p>Fei Siang Tay</p>	 <p>Ong Chin Ann</p>	 <p>Auzi Asfarhan</p>
 <p>Pray Somalido</p>	 <p>Mohd Hafiz Ismail</p>	 <p>Grafika Jati</p>	 <p>KESAVAN RAGHAVAN</p>
<p>Renjith Mohan</p>	<p>Min Hoe</p>	<p>Chamath Vithan...</p>	<p>Felicia Andayani</p>



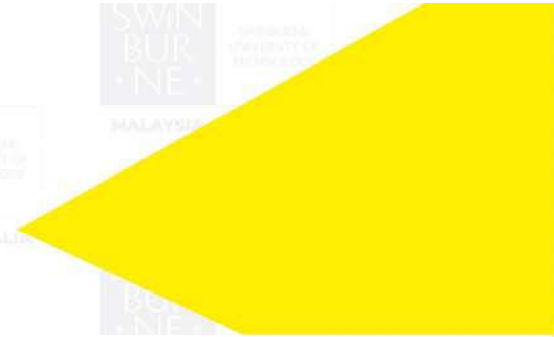
Vertical sidebar of video thumbnails showing other participants in the meeting.



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DAY 3

3 December 2020



IEEE

SARAWAK SUBSECTION



MALAYSIA SECTION



SARAWAK

CONVENTION BUREAU

Keynote Session 3



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Energy Sustainable Fog Information System (Fog-IoT) for Infrastructure-less Environments

Dr Jiong Jin

School of Software and Electrical Engineering
Swinburne University of Technology
Melbourne, Australia



SWINBURNE

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UNIVERSITY OF
TECHNOLOGY

Dr. Jiong Jin



Energy Sustainable Fog Information System for Infrastructure-less Environments

IEEE R10 HTC 2020

IEEE SARAWAK SUBSECTION

IEEE MALAYSIA SECTION

IEEE SARAWAK SECTION

Mark Tee

Fei Siang Tay

Qiaeratin Eboye

David Bong

Bee Theng Lau

Lance Fung

Mohammad Faizal Ahmad Fauzi

Jiong Jin

Jacey Minol

Sye Loong Keoh

Yi Lung Then

Auzi Asfarian

Ong Sing Ling

Chien-Sing Lee

Mohd Hafiz Ismail

Willone Lim

Kesavan Raghavan

Mohd Sallehin Mohd Kassim

Chamath Vithanawasam

SALAUDDIN AMIN

Aylwin Chai

Lau BeeTheng

Isaac Asante

Juliana Jaafar

Ahmad Zuber A...

Mute Stop Video Security Participants 25 Chat Share Screen Record Reactions End

for Humanity and Life-Long Learning



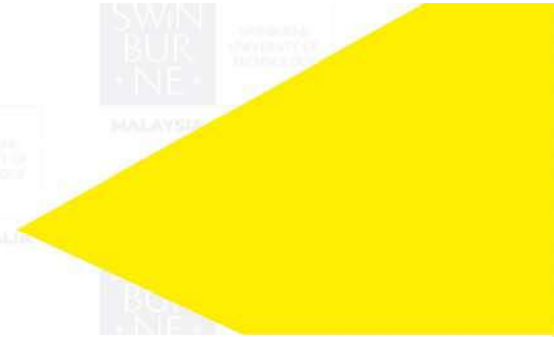
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Summary

1-3 December 2020



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United Kingdom	4
United States	2
France	1

Malaysia	110
India	86
Bangladesh	53
Philippines	47
Sri Lanka	23
Indonesia	15
Japan	12
China	6
Australia	3
Mongolia	2
Singapore	1
Taiwan	1

Thank you so much for the support!



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Acknowledgements

Associate Professor Dr. Sye Loong Keoh
Dr. Surapa Thiemjarus
Dr. Jiong Jin
Emeritus Prof. Lance Chun Che Fung
Professor Akinori Nishihara
Associate Professor Supavadee Aramvith
Professor Celia Shahnaz
Professor Shaikh A. Fattah
Associate Professor Dr. Jing Dong
TS. Dr. Then Yi Lung

A Big Thank You to All of the Members of the
IEEER10HTC2020 Organising Committees !



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Thank you!