

	Tuesday, October 1			Wednesday, October 2		
	Morning	Afternoon	Evening	Morning	Afternoon	Evening
Event Space (Floor 10)	Registration + Exhibition + Coffee			Registration + Exhibition + Coffee		
Auditorium (Floor 7)	Open Tech					
X1AB (Floor 10)		Artificial Intelligence		Cloud, Container, DevOps	Open Tech	
X4B (Floor 10)		Open Source Education + Civic Tech		Open Hardware and Production		
X02/03 (Floor 10)		Break-out/Hands-On		Break-out/Hands-On		
X11.7 (Floor 11)		Databases and MySQL		Internet Universality		
Bangkok City			Social Dinner Event			Asiatique Night Market

## OpenTechSummit Thailand 2019 - Oct.1, Day 1

### Conference Opening Day 1 / Track Open Tech in Auditorium (Floor 7)

9:00	Pachara Nariphaphan	Welcome (MC)	We believe in making a difference, in using technology as a force to make a positive impact in people's lives. As FOSSASIA's Mission Statement says, we are "bringing together an inspiring community across borders and ages to form a better future with Open Technologies and ICT." Last month, at the UN Climate Change Summit, it took a 15-year-old girl to confront the global establishment with the words: "How Dare You?". If we adopt that as our mantra for the next two days, this summit of OpenSource family members in Bangkok will help walk the talk of two more masterpiece UN slogans, "Creating the Future we Want" and "Leaving No-One Behind."
9:05	Mishari Muqbil, CEO Zymple and OpenTechSummit Organizer	How to Succeed with Your Software Project	Humans have been building bridges for thousands of years, we know how to conceive, design, plan and build them well. Computing is on the other hand is a new and relatively immature field, having existed for less than a century only. At the same time its practitioners have to take up tremendous responsibilities. In this talk I will discuss why some software projects succeed and others don't and how to increase the likelihood of your project's success. An important part in every project is communication and collaboration among team members. Therefore, I will focus specifically on communication strategies with different team members in a project and the question how to communicate challenges effectively to non-technical people, such as your boss.
9:20	Pun-arj Chairatana, Director NIA	How NIA fosters Technology Startups and the Open Source Community	NIA's mission is to support and develop Thailand's innovation system, in both the way of improvement and initiation, to promote economic restructuring and competitive enhancement. During his talk, Pun-arj Chairatana will share how NIA enable Innovative Business Opportunities for Startups through Open Knowledge, Open Tech and Open Innovation Funding Mechanism.
9:35	Misako Ito (Japan) Senior Advisor UNESCO	The importance of FOSS for sustainable development	FOSS can play an important role as a practical instrument for development as its free and open aspirations make it a natural component of development efforts in the context of the Sustainable Development Goals (SDGs).
9:45	Mario Behling (Germany), CEO OpnTec, Founder FOSSASIA	Collaboration in Open Tech as a Model for an Open Society, Entrepreneurship and Innovation	FOSSASIA's mission is to help people improve their life and society. There are a lot of problems all over the world - poverty, lack of education, over-population, to environmental issues like dirty oceans and climate change. These problems can only be solved through global cross-border collaboration. Rather than waiting for an elite of scientists, companies and politicians to solve these problems working together on selected projects, these problems are now so big that we need a more radical approach. We need to engage every single person on this planet and enable them to work together and innovate. We cannot afford to waste any talent. We need millions of projects that are developed and run in a sustainable way. In particular we cannot afford to waste any talents from underprivileged sections of society from the global north as well as the south. Everyone needs to be able to develop their skills to become innovators and become part of this essential effort to ensure the survival of the planet. How can we possibly achieve this? How can we develop technologies that enable people to solve these problems? How can the collaboration and sharing model in the FOSS (Free and Open Source) community be an example for a global collaboration? How can economic models around FOSS be an example for sustainable businesses and future entrepreneurs?
10:05	Marco A. Gutierrez, CEO FOSSASIA Academy (Spain)	FOSSASIA Academy Selfguided Learning for Future Entrepreneurs with Open Technologies, Science Labs and Robots	The FOSSASIA Academy is the first educational institution exclusively focussing on Free and Open Source technologies. The three main goals are to educate students, to develop coding skills and to enable participants to get employed or become entrepreneurs to employ tech talents. In the academy programs students learn to solve coding tasks independently through self-guided learning. Apart from courses for programming languages such as Python, Java, Go, Web technologies and Linux, students work with trainers on hands-on projects in science labs, create AI solutions or develop prototypes of robots.
10:15	KW Teng, CEO Lionsforge (Singapore)	Laser Cutter for STEM and Innovators	How can a Lasercutter benefit students in their STEM education and get them ready to be innovators and entrepreneurs? This is one goal we aim for with the Lasercraft cutter of Lionsforge. Designed from the the ground up to be reliable, user friendly and maintenance free the CraftLaser is a valuable ally to any crafter and a new source of revenue for entrepreneurs. How you use it and what you create with it is only limited by the imagination.
10:30		Coffee Break	

10:50	Dr. Putchong Uthayopas, Vice President for Information (CIO), Kasetsart University	Lesson learned from the building of a terascale AI server infrastructure	Building an AI service Infrastructure for a large number of researchers is a challenging task due to the complexity of system architecture, hardware and software co-design which need to match the diverse requirement of advanced users. This talk will share some lesson learned from setting up the ARES ( AI Research and Education System) and Poseidon System at Kasetsart University. ARES system is a cluster of NVIDIA V100 GPU consists of 4 nodes servers connecting to a 100Gbps infrastructure. Poseidon is a DGX1 system consists of 8 V100GPU card that has a peak deep learning performance of 1 petaflop. The purpose of this system is to accelerate the deep learning and HPC research activities at Kasetsart University. The lesson learned from system design implementation will be present along with the challenges and solution used for both software and hardware. Currently, this system is up and running for a group of advanced users and will soon publicly open for services at Kasetsart University.
11:05	Tanat Tonguthaisri, National Science and Technology Development Agency (NSTDA)	Preparing for the Autonomous Vehicle Era	Autonomous vehicle (AV), a.k.a. robotic car, self-driving car, or driverless car has the capability of sensing its environment and moving with little or no human input, the AV is set to revolutionize the way humans travel. The benefits are countless, ranging from reducing road accidents, emissions, drunk driving, and assisting elderlies and the disabled. However, there are also risks and issues that need to be addressed. Questions of how it will be regulated and how it will be liable for accidents or criminal actions still remain unanswered. The government sector continues its attempts to answer these questions through various forms of testing in regulatory sandboxes and use cases. There are dozens of cities around the globe already hosting AV trials, including Singapore's Land Transit Authority (LTA)'s sandbox, as well as Chiba and Semboku cities in Japan. Join in the discussion on making AVs a reality.
11:25	Panelists Mario Behling, CEO OpnTec (MC) Pornthep Chatpinyakoo, Director KMUTT Learning Square Misako Ito, UNESCO Pun-arj Chairatana, Director NIA	Creating Opportunities through Open Technologies, Knowledge Sharing and a Sustainable Economy	The biggest tech companies of the world have built their products largely on FOSS technologies. Many startups could only be created because tools and Open Source code created by a community enabled them to do so. How can we create more opportunities to solve the huge challenges we are facing on this planet with Open Technologies? What role does Asia and Thailand take place in the radical shift to a global knowledge community? How can a sustainable economy be created and what are icon projects and approaches that exist today, which can lead the way? These are a few questions we will discuss in this panel.
12:20	Mishari Muqbil, CEO Zymple	What's happening at OpenTechSummit Thailand	Tracks, exhibitions, break-out sessions, and activities at OpenTechSummit.
12:25	Open Tech Community	Group Photo	Let's get together for a group photo at the OpenTechSummit 2019 in Bangkok.
12:30		Exhibition Visit (Floor 10)	
13:00		Lunch Break (Floor 9, Cafeteria)	

## OpenTechSummit Thailand 2019 - Oct. 1, Afternoon Day 1



### Day 1 / Track Artificial Intelligence in Room X1AB (Floor 10)

14:00	Developers from Around the World	Lightning Talks	A lightning talk is a very short presentation lasting only a few minutes, given at a conference or similar forum. Several lightning talks will usually be delivered by different speakers in a single session, sometimes called a data blitz. Please sign up here: <a href="https://github.com/OpnTec/thai.opentechsummit.asia/wiki">https://github.com/OpnTec/thai.opentechsummit.asia/wiki</a>
14:05	Whatnot Team	KX Knowledge Exchange for Innovation	Not only a Co-working Space, but The Knowledge Exchange is a vibrant community of knowledge sharing to help promote the development of knowledge and lead to build a strong business. นอกเหนือจากให้บริการ Co-working Space แล้ว KX : Knowledge Exchange ยังเป็นศูนย์รวมขององค์ความรู้และเป็นพื้นที่แห่งการแลกเปลี่ยนที่จะช่วยส่งเสริมการพัฒนาความรู้และก่อให้เกิดการสร้างธุรกิจที่เข้มแข็ง ผ่านกลไกการแลกเปลี่ยนองค์ความรู้และนวัตกรรมโดยพันธมิตรจากภาคส่วนต่างๆ ประกอบด้วยภาครัฐ ภาคการศึกษา และภาคอุตสาหกรรม เป็นต้น KX : Knowledge Exchange มีจุดมุ่งหมายหลักคือการกระตุ้นการสร้างสรรคนวัตกรรม โดยมีบริการที่ครบวงจรทั้งพื้นที่ทำงาน องค์ความรู้ และกิจกรรมงานสัมมนา และการให้คำปรึกษาแนะนำในด้านต่างๆ ซึ่งเป้าหมายในอนาคตจะมีอุปกรณ์เพื่อรองรับความคิดที่จะสร้างสรรค์นวัตกรรมใหม่ๆ เพื่อให้ได้ทดลองและต่อยอดไอเดียอย่างเป็นรูปธรรม เช่น เครื่องพิมพ์ 3D Printing เครื่องพิมพ์ CNC และเครื่องตัดเลเซอร์ เป็นต้น อีกทั้งยังมีทีมผู้เชี่ยวชาญจากมหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรีคอยให้คำปรึกษาเกี่ยวกับธุรกิจทางด้านอิเล็กทรอนิกส์และนวัตกรรมต่างๆ อย่างเป็นมิตร
14:10	Lightning Talk	AVA Advisory	<a href="http://ava.fund">http://ava.fund</a>
14:15	Lightning Talk	Hbot	<a href="https://hbot.io">https://hbot.io</a>
14:20	Lightning Talk	Wildchain	<a href="https://wildchain.io">https://wildchain.io</a>
14:25	More Lightning Talks		
15:00	Boonsak Watanavisit	Blend In : How I sneaked FOSS into CGI Visual Effects Industry	Digital content creation software selections for visual effects was always dominated by a few organizations: Adobe, Autodesk for example. Nowadays, every one of them has adopted the subscription based business model, so users have no other options but to keep paying rental fee for continuous usage of their software. I was aware of the situation so I began my search for alternatives many years ago. Granted, it was a bumpy ride, but it's worth it in the end. Now I do not rely on the so called 'mainstream' software to produce industry standard work thanks to the FOSS community. And I'd like to share my story with you.
15:30		Coffee Break	
16:00	Rushil Sharma; Rutvik Kshirsagar	Kubernetes with Machine Learning using KUBEFLOW	This talk will focus on the rapid containerization of Machine Learning applications using Kubernetes as an Orchestration Solution in the background. In the world of rapid application development and deployment, we are challenged with managing too many application deployments in parallel to beat the competition as the one who deploys the application first usually wins the race. Enter Kubernetes with Machine learning with Kubeflow a very robust solution to deploy you Machine Learning applications along with features such as auto scaling and GPU acceleration for optimum performance. This is going to be a live hands-on demonstration of deploying Machine Learning applications on Kubernetes with an introduction to KubeFlow and Jupyterhub which are the tools required to run and manage the ML application development and deployment. We will be covering topics which are relevant to both the developers and devops admins.

16:45	Shane Torr	Tech Skills: Who's hiring and how much are they paying	Wondering how much your tech skills are worth? This session will give a brief context to the tech skills market (particularly in Thailand) to help explain what's driving demand and which Open Source skills are being sought. Then the session will then cover in more detail what affects salaries, what level of salaries are being paid for which skills, and how to "get found" if you're looking.
17:15		End of Track	

### Day 1 / Track Open Source Education and Civic Tech in Room X4B (Floor 10)

14:00	Joompot Sriyapan	การสอน coding เด็ก ด้วย opensource software	ประสบการณ์การสอน coding ผ่าน opensource software โดยใช้ระบบ mentor-based ซึ่งผู้เรียนจะเป็นผู้ค้นคว้าและศึกษาเนื้อหาด้วยตนเอง โดยมี mentor เป็นผู้แนะนำหัวข้อหรือแหล่งเรียนรู้ และช่วยให้ผู้เรียนพัฒนากระบวนการเรียนรู้ด้วยตนเองได้
14:30	Korakot Chaovavanich	Google Colaboratory for Open Data	Google Colaboratory (or shortly Colab) is a free cloud platform to run Jupyter Notebooks. It is freely provided for research and educational purpose. A data scientist can create an analysis notebook where anyone on the internet can click and tinker with it. So, it is a very useful tool to promote open data and citizen data science. In this talk I will present the key features of Colab and demo some example notebooks.
15:00	Marco A. Gutiérrez (Spain)	Python Introduction: Master all the Basics	Begin a career as a programmer by attending this comprehensive and straightforward Python introductory session. This session will introduce you with the skills needed for your future employers. A workshop will be offered after this workshop.
15:30		Coffee Break	
16:00	Thanisara GG Ruangdej	ELECT: Civic Tech for Thai Election	In the session, I'd like to like to share ideas and experiences about the project : - how it happened, what we've done, and how to run the project - how to run the project : collaboration between tech people, media, civil society organizations and volunteers - results and challenges - why civic tech and open data matters
16:30	David Doran (Welean.org Founder)	Open Source High	Billions of dollars are spent globally each year in an effort to reform education systems to be prepare our children for the digital age. Yet little progress is made: especially for the billions of children in developing countries unable to afford private schools. Open source education may be the key. The speaker will discuss how all the tools currently exist to create an true open source secondary education system that will not just produce kids fully eligible and capable for university, but with the skills to thrive in the digital age.
17:00	Unnop Sricharoenchai	HomeschoolNetwork.org and OctoberCMS	Talking about my open source project name homeschoolnetwork.org. Also, talking about the web framework behind the project name OctoberCMS. The newbie CMS with Laravel Framework. October CMS voted the Best Flat File CMS in 2018. อธิบายความเป็นมาและความสามารถของ open source project ชื่อ homeschoolnetwork.org ขวานพูดคุยถึงเบื้องหลังการทำงานของเว็บด้วย OctoberCMS ซึ่งเป็น CMS น้องใหม่ที่เพิ่งได้รับการโหวต Best Flat File CMS ปี 2018
17:30		End of Track	

### Day 1 / Track Databases and MySQL in Room X11.7 (Floor 11)

14:00	Ryan Kuan	MySQL Overview for Oracle DBAs	MySQL is the most popular open source database used and trusted by millions of users for cloud, internet and mobile applications. More and more enterprises are evaluating open source database technology as alternatives to their existing Oracle database. In this session, we will help existing Oracle DBAs to understand MySQL better as a viable database platform to complement existing Oracle database.
14:30	Ivan Ma	The Secret of MySQL InnoDB Cluster Deployment	Deploying MySQL as Open Source Database with the #1 High Availability focus is critical to many applications today. The session is to go after the latest MySQL InnoDB Cluster solution - To automate the Provision in Cloning; To automate the Failover using MySQL Router; To automate the Data Recovery; To simply the "Cluster" creation using MySQL Shell; Come and Join us the session to explore the details with MySQL InnoDB Cluster
15:30		Coffee Break	
16:00	Ryan Kuan	Unleashing the power of NoSQL using MySQL 8.0	JavaScript Object Notation (JSON) is fast becoming the de-facto data exchange format for both modern web and mobile application development framework. Developers love the flexibility of JSON to allow them to modify data structure anyway they want without bothering their DBA. In this session, come discover the latest NoSQL capabilities in MySQL to store and manage JSON data seamlessly in MySQL as well as to integrate with existing structured data in MySQL.
16:30	Ivan Ma	MySQL Troubleshooting and Performance Analysis	MySQL powers many of the world's largest and fastest-growing organizations. In this session, you will get more practical, safe and efficient ways to know in-and-out of the MySQL database performance; gain tips and tricks. Some OPEN SOURCE tools such as <a href="http://dimitrik.free.fr/">http://dimitrik.free.fr/</a> and Performance Schema will be explored during the session. Join us to find MySQL bottlenecks and learn how to properly configure the database appropriately for your efficient MySQL database.
17:15		End of Track	

### Day 1 / Track - Break-out/Hands-On (Floor 10) - X02

14:00		Open Space	Get together for a adhoc workshop, developer discussion or breakout session. The space is available for group of participants to discuss specific subjects or aspects of Open Source project, to learn hands-on, or work together on projects.
15:30		Coffee Break	
16:00	Marco A. Gutiérrez (Spain)	Python Introduction: Get Starting (Laptop required)	Begin a career as a programmer by attending this comprehensive and straightforward Python introductory workshop. This session will equip you with the right skills for your future employers. The goal is to develop skills that let you become more employable and valuable in the eyes of future employers. You will learn how to write a Python app. The workshop will start with a presentation in the track and then continue hands-on in a work area in the exhibition.
17:30		End of Track	

**Day 2 / Track Cloud, Container, DevOps in Room X1AB (Floor 10)**

9:00	Rushil Sharma; Rutvik Kshirsagar	Openshift 4 the hybrid cloud market disruptor	Openshift 4 is the latest Enterprise Kubernetes solution unlike any other in the market. This session will include hands on demonstration of OpenShift 4.1 on Red Hat Enterprise Linux, CoreOS
9:30	Ploy Chanprasert	Personal Data Monitoring Tool in Southeast Asia: Opportunities for Data and Privacy Protection in the Overlooked Region	The session has an objective to explore possibilities of having a personal data monitoring tool is free, easy to use, and open source for general public in Southeast Asia where efforts on cybersecurity and personal data and privacy protection are still limited. Many data breach incidents have not been handled properly looking at it from human rights perspectives. There are times that affected individuals are told to change their passwords only without knowing where their personal data goes compared to those in the first world countries where personal data monitoring service is offered. The tool, if there is a possibility to develop, would help protect people in data breach incidents in Southeast Asia. The session aims to discuss the possibility to develop this tool from technical perspectives.
10:00	Santosh Viswanatham	Writing Javascript with Better Performance	We have been writing Javascript for almost two decades now and it is showing up everywhere, including mobile apps, Servers, Devices, and Robots. But, Did you ever thought about the performance of your Javascript? or if there is still a better way to write JS which is faster? In this session, I will talk about the lessons I learned after cleaning up a 5-year-old code-base, proper ways to write your Javascript code, How handling typecasting, shortening scope chains, function chaining will improve the performance, How the usual way we do operations is not the fastest way to do it. I will also talk about How writing unnecessary steps can be expensive, and using supersets like Typescript can improve your code quality and performance. I will compare the performance of different approaches, and introduce tips and tools to validate the performance.
10:30		Coffee Break	
11:00	Prathan Thananart	Towards Container Platforms and Serverless Solutions	Docker and Kubernetes have ushered in an era of container Platform as a Service solutions. This talk compares homegrown cluster deployment against various offerings from cloud providers including ECS, EKS, GKE, and GCR.
11:30	Somsak Sriprayoosakul	How open-source software help ByteArk scale 5 times to achieve almost a million concurrents.	ByteArk is a CDN platform providing services video streaming & web-site. The platform has passed a certain milestone that the platform could withstand almost a million concurrent viewers in a single event by scaling the platform 5 times of its former capacity in around 2 months. This presentation will share the details on how open-source software help achieve this milestone.
12:00	Andrew Lee 李健秋	An infrastructure on containers to build your own Debian based distro	It is impressive how much time and resources a team can save by using the OBS infrastructure to manages their packages creation and distribution. OBS is a generic system to build and distribute packages from sources in an automatic, consistent and reproducible way. This presentation will help existing and new software projects and independent software vendors better understand how to use morden infrastructure to maintain your packages and repositories for multiple distributions and architectures collaboratively. And will hopefully encourage more software projects and independent software vendors to use such infrastructure to provide repositories for user to keep track their updates easily, and for developers to collaboratively work and contribute easily to the packages and repositories.
12:30		Lunch Break (Floor 9, Cafeteria)	

**Day 2 / Track Open Tech in Room X1AB (Floor 10)**

14:00	Jinal Folia	Driving South East Asia Forward with OpenStreetMap	It's been more than a year since we at Grab incorporated OpenStreetMap into our ecosystem and we have come a long way since then. This talk will focus on our learning journey, our tools, the challenges and our experiences working in the South East Asia region and the vibrant OpenStreetMap communities here.
14:30	Alliya Moun-ob	OpenStreetMap for TreeMapping	WWF's Living Planet Report 2018 revealed that wildlife populations have dropped on average by 60% within the past 50 years. We think of a few rare and iconic species being at risk of extinction, but the report shows that the whole natural world is feeling the impact of human activity. The same report sets out a vision for worldwide action to 'bend the curve' and reverse this decline in wildlife populations by 2030. We can all play a role in monitoring the health of our local environment. Without knowing what wildlife inhabits an area we have no way of knowing the impact changes to the environment might have on biodiversity. Wildlife might be declining because of things we are doing - or not doing - and we could have no idea that this was happening until the entire ecosystem was irreparably damaged. Learning About our local biodiversity empowers us with the knowledge we need to make informed decisions about how to protect and restore the natural world around us. Trees survey and mapping will help children to seek and learn about their biodiversity and how it supports wildlife in urban area. Moreover, the tree height and diameter can tell us how much carbon it contains and contributes to climate change. All data they have learnt will inspire them to value their neighbor green area and protect it.
15:00	Supawat Pugkhem	Blockchain implementation for government sectors for its partners in healthcare system	In healthcare system, the government sectors need information exchanges among its parties such as manufacturers, distributors, hospitals and pharmacies. By using blockchain platform, all parties will exchange their information via blockchain platform automatically. This implementation helps to automate the information exchange processes from partner's Enterprise Resource Planning system (ERP system) to government's ERP system via blockchain. Therefore, by using this solution, there will be no offline information sending nor receiving among them. This solution will help to make sure that the results of the information exchange are faster, more accurate, more reliable and more transparent as well as reducing the cost of process to put the information offline and online. The implementation takes care of all the security aspects, a proper Public Key Infrastructure (PKI) is used throughout the system including encryptions to secure the communication and verify the identity via digital signature. All information is prepared from ERP automatically in agreed XML format, then is signed, encrypted and sent to blockchain platform via SOAP/RESTFUL API. At the other end, the information is received, then unencrypted, identified and then sent to ERP system automatically. The result of this implementation via using blockchain is very successful with partners and this will become the standard of communication between the government and its parties in healthcare in this coming year.
15:30		Coffee Break	

16:00	Su Myat	Dependency Injection with Kotlin vs Dagger	Dependency Injection is mainly used for the control and management of dependencies. Koin is a simple and powerful dependencies injection library. It's written with Kotlin. This topic will cover what Koin is, compare with Dagger and how to use it. In order to properly compare the two implementation options, firstly will focus on a project that Implemented first with Dagger and now with Koin.
16:30	Klaikong Vaidhyakarn	Open Government and eCitizen Engagement	This talk is about Open Data and people's participation through digital platforms in multiple levels, as followers to civic hackers and how governments and political parties can benefit from Free and Open Source Software.
17:00	Mishari Muqbil, Mario Behling	Event Closing	This was OpenTechSummit Thailand 2019
16:55		End of Track	

## Day 2 / Track Open Hardware and Production in Room X4B (Floor 10)

9:00	Nontawit Markjan	Transfarmer: Open source makes agriculture do more	Transfarmer is the smart hydroponics farm project that integrated technologies with the agriculture follows by the industrial standard ANSI/ISA95. It consists of 3 main parts which are 1. hardware - planting and harvesting system, fertilizer control, and environmental monitoring 2. server - the medium that connect hardware and application to work together and 3. application/dashboard - users can real-time monitor the status and control their farm to plant or harvest at anywhere in the world.
9:30	Nguyen Hong Quan	Application of open tech in an IoT platform for agriculture	The major advantage of an IoT platform for farming is the integration into a one platform to control farming decisions such as irrigation system control, fertilization, pesticides, and an open data network. How we apply open tech from various levels (operating system, embedded system, database, programming language, web framework) to build up an IoT platform for mushroom farm, which then expand to hydroponics and swiftlet house.
10:30	Cristian Guajardo	Building a wax printer for the fabrication of chemical analysis devices	In the last decades, chemical analysis has been moving from the laboratory to hand-held devices, of which the glucose meter (for diabetes patients) and pregnancy test are two successful examples. Paper-based microfluidics is a new technology that holds the promise of removing expensive and cumbersome instrumentation from chemical analysis devices, while still performing sophisticated medical and agricultural diagnostics. These devices are commonly fabricated using paper containing fluid channels made out of wax, which conduct the liquid sample during the analysis. In this talk, we tell our experience of adopting free and open source technology to modify an existing design of wax printer, and to use it as an student project for our laboratory.
10:30		Coffee Break	
11:00	Nat Weerawan	Chiang Mai Maker Club: An open source community & maker space in CNX	Nat will be talking about the ups and downs of community-building; curation of tech content, connecting people, building teams out of volunteers from scratch, and the challenges of making the concept of 'makers' more known to society. Moreover, the talk will also touch upon how conventional education faces a challenge to build capabilities that correspond to fast-moving technological advances – mainly why building learning communities like Maker spaces is crucial.
11:30	Kee Wee Deng	CraftLaser - the open source laser cutter	The CraftLaser is the first Full-metal enclosure CO2 laser cutter that provides maximum protection to you and your family, much like owning a Blu-ray Player, it is a Class 1 Laser equipment. The CraftLaser is lightweight and has a luggable design that makes it the only CO2 laser cutter that is stowable and perfect for users with limited space. Also, you do not need to plug in an extra air extractor (also means you don't need to be close to a window or door to vent the extracted air) and you also do not need to plug in an external cooling system to use it. No ugly water pipings and pails of water to deal with.
12:30		Lunch Break (Floor 9, Cafeteria)	
14:30	Marc Dusseiller Dusjagr	From Open Source Biological Art to DIY scientific instruments	In this session, Dr. Marc Dusseiller will present his projects around hackteria, how it lead to GOSH larger network and the specific DIY science instruments by GaudiLabs.
15:00	Wei Tat Chung	Pocket Science Lab	Pocket Science Lab is a complete platform that is fully open source in every layer; hardware and software. Looks may deceive you thinking it's another Arduino device but you would be amazed to see what it can do. This tiny device can literally replace a room full of electronic analytical tools with its 4 channel oscilloscope, logic analyzer, multi-meter, wave generator and many more instruments it got. With a PSLab in hand, you wouldn't need to know any software programming to use and take readings from almost any sensor you got. PSLab got it all. In this session I am going to show you all of it.
15:30		Coffee Break	
16:00	Andrew Tse	Mass production of hardware and getting it into the hands of your customer	You've spent months on the prototype, rehashing, redesigning, testing and breaking and now you have a product you are happy is market-ready. The hard work is not yet over. How do you then take the step of getting it mass manufactured, packaged and delivered to a fulfillment warehouse or direct to your customers?The making of a multiple products at scale is not the same as fabricating the prototype. The components may be the same, but the process is not. So what could have worked wonderfully for the prototype may fail disastrously for the finished product. Some companies are under such pressure to fulfil orders or hit production deadlines that they rush this step and what they thought was just a replication of the working prototype instead becomes a mad dash with invariably quality issues. Often it's because the developer has spent too long perfecting the product or software, and they impatiently just want to see their baby on the shelves, but insufficient time is left for the actual factory production. I'd like to talk through some of the pitfalls of production, quality control and then packaging and logistics to get the final product to market. I hope that some of the lessons will make your life easier in developing and finishing your products and giving your customer the best experience possible.
16:30	Khomdet Phueadphut	KBIDE: Opensource & Hackable IDE for hardware developers.	KBIDE is a tool for embedded board development [types esp32 and arduino-avr]. Its coolest feature allows beginners to learn programming using blocks without having to worry about complicated syntax. Moreover, more elaborate users can also choose to code with C/CPP Language to unlock its full potential. Other key features include efficient compilation, ease of plug-in use, and customizable IDE. But what is the logic behind building this user-friendly tool? All its workings is backed with Electron and VueJS, a Compiler coded by NodeJS, developed as a WebApp - all-in-all which makes it an ease for all users. Not to mention that this amazing tool is 100% Open-source.
16:55		End of Track	

## Day 2 / Track Internet Universality in Room X11.7 (Floor 11)

9:00	Mr Ekapong Rimcharone, Executive Director, Office of the National Digital Economy and Society Commission Dr. Pun-Arj Chairatana, Executive Director, National Innovation Agency Mr Shigeru Aoyagi, Director, UNESCO Bangkok Office	Welcome address and opening remarks	
9:30	Ito Misako, Adviser for Communication and Information, UNESCO Bangkok	UNESCO's Internet Universality Indicators: A Framework for Assessing Internet Development	UNESCO will present the key media trends as highlighted in the World Trends in Freedom of Expression and Media Development 2017-2018 Report and the relevance of Internet Universality ROAM-X Model as a framework for addressing the pressing challenges and assessing Internet development in countries.
10:00	Ito Misako, Adviser for Communication and Information, UNESCO Bangkok		Q&A
10:15		Coffee Break	
10:30	Dr Simon Ellis, International Expert, UNESCO Dr Pirongrong Ramasoota, Chulalongkorn University Mr Arthit Suriyawongkul, Thai Netizen Network	Internet Universality in Thailand	Pilot assessment of Internet Universality in Thailand was undertaken between July and September 2018 and the report was completed jointly by the national research team and UNESCO international expert. The researchers will present the research methodology and the key findings of the assessment based on the application of Internet Universality Indicators in Thailand. The presentation will also highlight areas where improvements can be made regarding Internet Universality in Thailand.
11:30	Dr Simon Ellis, International Expert, UNESCO Dr Pirongrong Ramasoota, Chulalongkorn University Mr Arthit Suriyawongkul, Thai Netizen Network	Q&A	
12:30		Lunch	
13:30	Group work	Categories for the indicators of Internet Universality	The participants will be divided into 5 groups to discuss and comment on the 5 Categories of the indicators in the draft report. Questions to be addressed by each group include: Does this category present an accurate overview of Internet in Thailand? If not which indicators require improvements? Why? Where are the data gaps? Who/which institutions can address the gaps? What recommendations can you make on this Category of the indicators for the development of Internet in Thailand to meet the ROAM principles?
15:30		Coffee Break	
15:45	Plenary presentation	Presentations by group The way forward Concluding remarks	
16:55		Participants move to main room for closing	
17:15		End of Event	

### Day 2 / Track - Break-out/Hands-On (Floor 10) - X03

9:00		Open Space	Get together for a adhoc workshop, developer discussion or breakout session. The space is available for group of participants to discuss specific subjects or aspects of Open Source project, to learn hands-on, or work together on projects.
10:30		Coffee Break	
11:00		Open Space	Get together for a adhoc workshop, developer discussion or breakout session. The space is available for group of participants to discuss specific subjects or aspects of Open Source project, to learn hands-on, or work together on projects.
12:30		Lunch	
14:00	Welearn Team	Unplugged coding demonstration workshop	Fun kids activities to learn coding without a computer. Unplugged STEM activities for Hour of Code, computer programming class, elementary school students.
15:30		Coffee Break	
16:00		Open Space	Get together for a adhoc workshop, developer discussion or breakout session. The space is available for group of participants to discuss specific subjects or aspects of Open Source project, to learn hands-on, or work together on projects.
17:30		End of Track	