The FOSS Young Professional Meet 2015 (FYPM 2015)

Introduction

The FOSS Young Professional Meet is the annual event of its kind that brings together students, fresh graduates, young professionals and start-up companies that are interested in FOSS-based tools and technologies, for the purpose of acquiring information, skills and competencies. Aimed at the above objectives this year also ICFOSS conducted such a meet namely, FOSS Young Professional Meet 2015 (FYPM 2015) during 21-22 December 2015 at Mascot Hotel, Thiruvananthapuram. The lead theme for the meet is "Internet of Things with Open Source Hardware", reflecting the importance of recent developments in this domain. The event had invited presentations on a variety of emerging areas in "IoT with open source software & hardware" for those two days, and had a project contest on the lead theme on the second day.

Around 230 participants were present for the event. They include students from various Engineering Colleges of Kerala and Tamil Nadu, Professionals of IT Industry, FOSS entrepreneurs, FOSS experts, Academicians etc. There were several interesting, informative and innovative sessions to add significance to the event. All the sessions were handled by the selected FOSS experts in the respective areas. The participants were given food and such other necessary infrastructural facilities to attend the sessions.

The time for registration of the event was from 9.00 am – 10.00 am on 21st December at Symphony Hall, Mascot Hotel. The inaugural session started at 10.00 am. The welcome speech was delivered by Dr. Jayasankar Prasad, Director, ICFOSS. The formal inauguration was made by
Sri. P H Kurien IAS, Principal Secretary to Government, Industries and IT. The event briefing was done by Sri. Srinivasan, Senior Consultant, ICFOSS. Sri. N Rishikesan, Special Officer (Administration), ICFOSS proposed the vote of thanks.

The Director, ICFOSS addressed the gathering and said that the Programme was aimed at strengthening the capacities of students and young professionals in FOSS initiatives and thereby getting their contributions for the welfare of the community at large. He also asked the participants to make use of the knowledge gathered from various sessions of the event for the above purpose. In the inaugural speech Sri. P H Kurian IAS, stressed the need for the propagation of FOSS initiatives for the welfare of the society. He advised the gathering to try to explore new innovative and useful ideas which will in turn become beneficial to the public community. The ianugural session concluded at 10.30 am.

There was a tea break for half an hour from 10.30 am – 11.00 am.

KeyNote Session

The next session was a Keynote address delivered by Mr. Rajesh Nair, Visiting Scholar, MIT, Product Development, Commercialization & Entrepreneurship, Director of ASB Innovation & Entrepreneurship Center at Asia School of Business, Kuala Lumpur. He shared his experience regrading FOSS initiatives with the help of video clippings.

He said everybody who aspire to be an entrepreneur are in a sense makers. In the making of a successful entrepreneur there may be so many failures in his way. Take the failures as experience for success in future. No one could walk on the first day of his life. He learn to walk after several falls. So is the case with success in entrepreneurship. The first step for the entrepreneurship is to identify makers. Making a community of makers is the primary thing to be done. The makers make employability. About fifty percent of the graduates in the world are not employable. To make them employable we must give them proper training to build up their technical skills. Unless you start making things you never actually get to a point. Thinking outside the conventional norms is the key to success.

An entrepreneur is someone who can take an opportunity and make a viable company out of that. There are four stages for the evolution of a successful entrepreneur. They are zero, Maker, Innovator and an entrepreneur. Maker hacks things, an innovator hacks problems and an entrepreneur hacks opportunities. Do, fail, learn and launch is the process to be done. There are three major factors to make somebody from zero to an entrepreneur. They are Internal, External and Interventional. In the internal factor one has to build self confidence through experience. In the external factors he needs a supportive ecosystem. In the interventional factor one has to start earlier.

He had given opportunity to ask questions to the audience regarding his talk about entrepreneurship. Several questions were asked and he has given informative explanations.

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Panel Discussion – FOSS Entrepreneurship

The next session was a panel discussion on the subject "FOSS Entrepreneurship". The panelist were Mr. Rushabh Mehta, Founder, ERPNext, Mr. Anoop John, Founder & C. T. O., Zyxware Technologies, Mr. Joyce John, Co-Founder, RUBY Software, Mr. Arun, Director, Space (Research Fellow, CDS)

In this session the panelists explained their experience in entrepreneurial commencement. Mr. Rushabh Mehta narrated his story of joining his family business with an ERP accounting software. He experienced a lot of difficulties in the beginning. But now it is flourishing with two thousand active members and fifty contributors. Mr. Anoop John, is working on Drupal software. During the past few years they have become one of the major contributors in this Open Source platform. More than fifty companies are using their modules in company's websites. Thus they have grown the largest company which contribute Drupal in India. The achievement was due to their small strides and belief towards the goal and continued effort for attaining the result. Mr. Joyce John, is working on Ruby on Rails. Ruby is the software and rails is the platform which are open source. With their continued effort they have become the largest company working on Ruby on Rails in Kerala. He was also stated that the start ups who understand Ruby on Rails will prefer to work on it. Mr. Arun, has made a speech on the relationship and relevance between FOSS and entrepreneurship. Entrepreneurs like Bill Gates and Mark Zuckerberg have a lot of money, power and to control the emotions of the public. Most of the entrepreneurs aim to attain the status of the above successful entrepreneurs. The fact is that the earth cannot afford such a number of entrepreneurs with such wealth and power. He also said that an entrepreneur is a person who takes risk to make change. In the year 1996 less than ten persons including himself started the FOSS entrepreneurship movement in Kerala. They have taken the risk when there was no scope for FOSS. Now FOSS has become a healthy medium for entrepreneurship. Now more than fifty percent of the business enterprises in Technopark depend on Free Software. Free software provides a huge wealth of knowledge to the community for entrepreneurship. He reminded of the unethical use of Free Software.

The Panelists invited questions from the audience in this regard. Several questions were asked and explanations were given.

The panel discussion was followed by the lunch at 1.00 pm.

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FOSS 2015 – Update

Mr. Arun, Director, Space (Research Fellow, CDS) delivered a lecture on the FOSS 2015 updates for forty five minutes. He explained about the relation between Free Software and IoT, which is gaining much importance today. He said Free Software means a lot more than a platform to run IoT. A set of instructions given to the computer can be termed as a software. We can give instructions as per our requirements to get the desired result. There is supply of infinite knowledge and the cost of it is zero. This was the case with software until 1970s. But the things changed when software companies began to sell software by using patent, copyright etc. He said the Free Software started as a resistance to the above. Dr. Richard Mathew Stallman started the Free Software Movement during the years 1983-84. This has developed to a point where the new major companies are using Free Software. During the past five or six years famous companies like Google, Yahoo, Facebook, Amazon etc. are developing Free Software for their projects. But they are not selling software instead they are using the Free Software technology to understand about others and selling the collected information to other companies. The

IoT concept was there in the famous book of George Orwell called 1984. This book talks about how the remote surveillance operates. Mobile phones and browsers are spying the personal information. IoT has much more potential in spying the personal information. It can take your heart rates, identify your travel location, things absent in your collection etc.

During the beginning stages of Free software the personal informations are confined to the machines used. But the proprietory software developers wrote their own software to have control remotely through cloud platform. You cannot trust your machine until and unless you run Free Software in your machines. Thus the propreitory systems and the cloud based services causes huge disaster by making centralisation of power. This has to be resisted and there is the relevance of Free Software. We have to develop software for privacy and security and for decentralisation. When you work on IoT you must have an idea of how the above aspects can be achieved. He advised that people must start using Debian or Fedora Free Software operating sytems, which are running on individual areas as against proprietory softwares, running on cloud based platforms or centralised platforms, for IoT purposes.

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IoT and FOSS

At 2.45 pm, there was an online talk on IoT and FOSS by Mr. Martin Ectors, Vice President Internet of Things at Canonical Ltd. / Ubuntu.

He is the first person to have the iPhone built self-driving car and his passion is understanding the industries critical problems and using cutting edge innovations to create the next big revenue stream and re-define industries.   He love learning startup and big bang disruption methodology and brought to market Snappy Ubuntu.

The session starts with the brief description about online shopping, online book stalls, cloud, apps etc. and all of this is due to exponential and disruptive technologies. These technologies made a great impact in the field of networking, mobile technologies, etc. We have board processers, modules, cords coiling to devices that are connecting to peripherals to sensors each to communicate that have specific libraries, apps, people make use of these running things in a cloud integrating offer services and having specific user interfaces. Internet of Things is a sort of technology play that combines a lot of things.

Block chain is a distributed database that maintains a continuously growing list of data records against tampering and revision and is revolutionary. Another exponential revolution is micro servers. Snappy Ubuntu Core allows to put app stores on top of any device and anybody can have their own app store. Next is juju, an application and service modelling tool that quickly model, configure, deploy and manage applications in the cloud and on private cloud like open stack.

He also deals with the areas were IoT is prevalent such as medical field, industrialization, automobiles, telecom, weather forecasting, etc. He concluded the session with some of shouldn't do things in IoT in future.

There was a tea time at 3.30 pm.

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Panel Discussion- FOSS Trends

A panel discussion on the subject " FOSS Trends" was the next session. Mr. Amarnath Raja, Partner and CEO, InApp, Mr. Sabarish, Scientist F, Head Information Systems and Division, Mrs. Asha Varma, Additional Director, NIC were the panelists.

Shri. Amarnath Raja is the CEO and co-founder of InApp and is responsible for the overall technology strategy at InApp. He served as the Kerala section chair of IEEE, been a member of the Lexicon of the Asia Pacific region. And has been the first chair of the HA, SC, global humanitarian technology initiative of the IEEE. He is also a member of the Computer Society of India (CSI). He goes through some of the areas that are trending in FOSS. FOSS has been trending since 2000 in Kerala, and Kerala has been one of the first states in the world to have a policy which has FOSS friendly. On the early days, they used to give lectures about what FOSS, open source and free software were, and people had some ideas of their own. But a dilemma of "How long will this survive?" May be it will fizzle out was there. But now he is sure that the survival, sustainability, growth of free and open source software are of no question. It will grow very high. Any area of software that you take, be it IoT, be it Cloud, be it any of the newer technology Trans databases, big data, everywhere it is the free and open source software that leads, then the others follow. And according to him everyone has to change their machines and change the operating system to an open source, and the one who uses are used to the speed of working there, and never come back. The beauty of open source is that security is enforced because people see the source code. So that they can point out the problems in the source code and can pluck the problems. That is why IoT depends on open source rather than closed source. Microsoft and Dot net has open sourced a lot of things. Open source is now in the field of bioinformatics too. What is happening in technology is happening in open source. It is going in diverse ways. He also pointed out the programming languages like Scala, erlang and elixir that are coming to the front. But without any doubt, Java script is ruling on the front end. Some intermediate layer of Python, PHP etc. are there in between the database and java script, but still java script is ruling beyond any doubt. Traditional databases like SQL and others are still continuing. Higher speed databases like HP, acer, adobe are also getting important. Now memory based database, Redis is known for their speed. He wind up his speech by giving an idea about FOSS trends.

Shri. Sabarish is a Scientist F, Head Information Systems and Division. He is the former mission coordinator in Kerala State IT mission. He is one of the leaders of the m governance movement and he is involved in policy formation. He started his session by comparing the value and usage of computer now and then. And pointed out that the best way to predict the future is to invent it. But in

reality, it is conquering the world. All the giant companies like amazon, facebook, google, Microsoft etc. have adopted a part of open source. 99% of the mission critical applications in the field of space and military is going to run on it and 78% of global 2000 enterprises runs in open source. It is not only helps in developing the software but also defying the quality of the provider. He has also gone through the bioinformatics part of open source too. Now, it is the time of photonics and virtualization were all the connections were done through signals and software. He concluded his speech by pointed out the contributions of open source in the field of Automobiles.

Mrs. Asha Varma is the senior technical director in National Informatics Centre, Kerala. She has over 27 years of experience in the field of e-governance sector. She has been actively involved in promoting open source in NIC. She deals with how FOSS has changed e-governance. With the help of open source software a lot of changes has took place in the field of e-governance. Kerala as well as India government is now promoting open source. Under digital India program 2015, the open source policy has come into existence, and the main objective of the policy is to provide a frame work for the rapid and effective adoption of the open source technologies. And to ensure the strategic control in e-governance for long term perspective and to reduce the total cost of ownership of projects. She also concluded with saying that open source is here to stay.

As a matter of respect, Dr. Jayasankar Prasad, Director ICFOSS handed over mementos to the panelists who shared all the information regarding FOSS trends.

At 5.00 pm there was a project demo visit inside Symphony hall. All the selected projects which are not qualified for the final project contest were allowed to have a demo at the rear side of the Symphony hall. All the participants were requested to visit the demo site for viewing their innovative ideas imparted through their projects. There were about 8 projects of this type for demonstration.

The cultural programme commenced at 6.00 pm. It was followed by a dinner. The first day programme concluded at 8.30 pm.

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Second Day

The programme commenced at 9.30 am.

IoT Data Analytics

Mr. Christy Jacob, Data Scientist TCS, Cochin deals with the terminology Analytics of Things, architectural aspects of Analytics in IoT and general analytics kind of difference, fog computing and how it augment to IoT and AoT and applications of AoT.

Mr. Thomas Davenpot, professor and world's foremost thinkers when it comes to analytics and artificial intelligence and knowledge managements. He introduced the word Analytics of Things to the world. When talk about IoT, the emphasis goes to getting things connected through various protocols which captures data from sensors. Getting of meaningful insights from the information and to put this data to use is done by Analytics of things. IoT is mainly driven by three particular factors, advancements in embedded technologies, communications, and processing power. He also furnished some informative examples showing how IoT changing the way of business, like the foreign countries are turning capital expenditure into operating expenditure.

Then he moves on to Fog computing, which is the sophisticated version of the EDGE. The benefits of fog computing is the network utilization, analyze data faster, reduce processing load in the cloud and improve security. The challenges of Fog computing are, architectural complexity and security itself.

He shared some interesting work experiences that he had in TCS. Then furnished a lot of examples through presentations, that how IoT is serving in different fields like in airport authorities, automobiles, chillers etc. They all are done through the sensors which are inbuilt inside the electronics and recognizing the usage and power consumption etc. and through this the providers are able to monitor how their products performance.

The session ends with an interactive questionnaire section.

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Sensors and Networking

The session on sensors and networking was handled by Mr. Harikrishnan and Mr. Jinesh, Research Associate, Amritha Centre for Cyber Security, Amritha University, Kollam. Their role there was to build a securable, scalable and interrupted platform for IoT.

Mr. Harikrishnan started his session with pointing out to IEEE 802.11. And also defined IEEE 802.15.4 as the underlying protocol which supports ZigBee, 6LoWPAN, WirelessHART etc. which are the available low-power protocols which helps to connect sensors and other devices. It supports star as well as mesh network topologies. Once this protocol was used is ZigBee, which defines the network application and the security. Two application profiles currently maintained in ZigBee are Public Application Profile and the Manufacture Specific Application Profile. ZigBee defines three types of devices such as Coordinator, Router and End device. He has given a detailed picture about ZigBee through his PowerPoint presentations too.

Amritha also developed in-house IoT enablers. One is Amritha Gateway (Agway) and RFID Gateway. He also presented the diagrammatic presentation of RFID system. Amritha Centre for Cyber Security also built Amote, pluggable sensors, cloud based solution for IoT ie, (AIoT) Amritha Internet

of Things, Amritha Big Data Framework (ABDF). He wind up the session by showing a video regarding their project that they implemented in a village at Coimbatore. And ends up with a questionnaire section.

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IoT Protocol

Mr. Amit Dev, Senior Principal Applications Engineer, Oracle. His contributions are there in open source projects. He deals with the topics: what is IoT? Challenges for IoT, Protocols currently have in IoT and new protocols.

The term IoT came into being in 1999. Previously IoT was just an idea and now it became a fruitful reality. Though IoT is familiar now a days, there are some challenges too. The issues are with scalability, configurability and interoperability. Another big challenge is security. It is going to be a big problem tomorrow. To solve this problem, a balance between security and freedom has to implement. Then comes privacy, which is also equally important problem. To make it stable, balance privacy and comfort.

For the working of IoT, different set of protocols are needed. The most popular protocol is HTTP. It was formulated in the way back in 1991, by Tm Bernerd-Lee and others. HTTP V0.9 was the first version and it works on top of TCP/IP. The disadvantages of HTTP is that it is one to one, unidirectional and synchronous, ASCII encoded textured data.

The commonly used protocols in IoT are L2TP and COAP. L2TP is one of the popular protocol in IoT. L2TP stands for Layer2 Tunneling Protocol. It is simple, reliable, lightweight protocol. It has one to many communication setup. COAP is a document oriental, restful protocol which became a part of IoT in 2013. It is specialized for mission to mission communication and is easy to proxy from HTTP. It is in binary format and of client server model. It is asynchronous. These two protocols have low power consumption too.

He ends up the session with a comparison of protocols and devices to Nature. Mr.Arun give away the memento to Mr.Amit Dev as a matter of respect.

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Open Source Hardware

The session, Open Source Hardware was handled by Mr. Mathan Raj Murugan, Technology Engineer, SECO, Bangalore. He worked for DIY kits and have one plus year experience in core level roating additional VSP on free scale boards and working with Linux Kernel version 3.14.28. He has developed an android application based on BLE and Wi-Fi, currently working passionate on IoT applications.

UDOO Neo is a single board embedded two cores on the same processor. It is a credit card sized board with a free scale i.Mx6Solox application processor and has inbuilt motion sensors within itself and have Wi-Fi and Bluetooth module, the board which is ideal to create robots as well.

Kaa platform is an open source multipurpose middle ware platform with the freedom in selecting a network stack for establishing communication between the server and end points like mqtt, TCP IP,HTTP, etc.. It is an open platform which is free of coast. Kaa server supports windows, Linux and Mac. It is an end to end protocol communication. It is a platform supported by raspberry pi, Beaglebone, Linux, UDOO, etc.

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Lightening Talks

Mr. Sidharth, IoT Analyst, TCS, Cochin
Dr. Asharaf. S, Associate Professor, IIITMK
Mr. Jithin, Software Engineer, Space, Malayalam OCR

Mr. Sidharth deals with the topic Open Source Hardware, its advantages and single board computers. Open source hardware's like raspberry pi, arduino, google board, UDOO etc are the usually seen common physical object which are licensed in such a way that it can be studied, modified, created and distributed. It is otherwise known as FOSH. As far as software is concerned, it is possible to give away as freeware. Because of the cost involved in replications, hardware can't be a freeware. Some of the advantages of Open hardware are: mass production in higher level is possible and cost will be comparatively less. Different types of shields are there so we can have further developments. Some of the main open sourced hardware's are:

 Reprap 3d printer project's software as well as hardware are open sourced so it can replicate itself.
Tiny Educational Robot, headed by different universities over the globe, made for the purpose of education from school level to college level.

Icub Humanoid Robot, which has the size and weight of a 3 ½ year old human kid and its circuitry and artificial intelligence are designed as an open source project.

Inmoov 3d Printable Open Source Robot is also an open sourced one.

Moving on to Single Board Computes, the most familiar one is Arduino. Some of the most popular arduino boards are arduino uno, arduino mega, arduino Lilypad, arduino bt, arduino nano, arduino mini etc. Next comes raspberry pi. Python is the most popular language used in it and have some advantages as well as disadvantages. And also goes through Intel galileo, panda board and micro-chip controller.

Dr. Asharaf. S, deals with the topic Intelligent Internet of Things and how to impart intelligence to Internet of Things. He started the session with a biological experiment regarding intelligent Internet of Things and he goes through the vast areas which intelligent Internet of Things can capture such as in the field of automobiles, farming, mobile networking, social media etc.

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Project Contest Presentation

ICFOSS has conducted a Project Contest on the theme "Internet of Things with Open Source Hardware" as part of the FYPM 2015 programme. Online applications were invited and we received thirty five applications. Out of the above, fourteen were shortlisted by ICFOSS. These fourteen contestants were given an opportunity for preliminary presentation of their projects before a panel of experts at ICFOSS office. Then selected best six from the above for final presentation. The remaining eight participants, which are not qualified for the final project contest were allowed to have a demo at the rear side of the hall in which the programme was conducted.

The selected best six projects were presented before the expert panel of judges for evaluation. The panelists were Sri. R. Srinivasan, Senior Consultant, ICFOSS, Dr. Ashraf S, Associate Professor, IIITMK, Sri. Akshay, Fellow, Startup mission, Sri. Pratheesh, CEO, Logtech, Thiruvananthapuram, and Mr. Shahim Baker, Grey Technologies, Ernakulam. The following are the details:

First Place:

Project Name: Electrical Accidents and Street light Monitoring

Presenter: SHYAM PRADEEP, Govt. Engineering College, Thrissur

Project Discription: Technology is developing day by day. Everything became smart our phones, cars etc. But street lights and electric post are still at Stone Age. The number of electrical accidents during the maintenance of power line has been increased in Kerala and many KSEB(Kerala State Electricity Board) workers lost their lives during such accidents. There is no protection for the workers who work

for maintaining uninterrupted power supply. Usually power supply is cut at transformer side for maintenance and most of these accidents are due to accidental energizing of power lines when the worker is in contact with power line. i-post enables a facility to control the power line with a simple circuit fixed on safety gloves of the worker. Proper functioning of street light is very important for the safety of pedestrians. Malfunctioning of street light is one of the causes for vehicle accidents. Sometimes the street light works 24 hours mean while sometimes they did not work and most times officials are unaware of this. Here comes the relevance of i-post. . i-post informs KSEB office whenever the street light malfunctions and thus becomes a solution for all these problems. Construction:-The i-post circuit is constructed as per the circuit diagram. The transmitter circuit comprises of rf transmitter, voltage regulator and encoder. The receiver circuit contains the rf receiver, decoder, ATmega 328 p, GSM module, relay circuit, LDR sensor and voltage regulator.The

microcontroller is programmed using Arduino Uno.Working:-i-post has two LDR sensors. LDR Sensor 1(s1) is placed inside the street light while the Sensor 2(s2) is placed outside the street light. During night time when no light falls on S2, S1 get activated and analyze whether the street light is functioning or not. If the street light gets damaged, no light falls on s1. So S1 sends signal to microcontroller and microcontroller sends message to nearest KSEB office through GSM module. The message sent will be "Street light no:_ is not working". In this way i-post monitors the functioning of street light.The RF circuit of the i-post should be fixed inside the safety glove of KSEB worker. Whenever the worker works on power line, this RF circuit should be switched on. So this RF circuit sends signals to i-post receiver module and microcontroller cuts the power line with the help of a relay circuit. Even when the power supply is accidently switched on at transformer side before completing the maintenance work, the power line will not get activated unless the KSEB worker switch off the i-post transmitter circuit fixed in his glove. This ensures the safety of the worker.The status of the electric post (regarding functioning of street light and condition of power line through the post) will be displayed through the LCD module in the i-post.Applications:-The number of electrical accidents during the maintenance of power line has been increased in Kerala and many KSEB workers lost their lives during such accidents. There is no protection for the workers who work for maintaining uninterrupted power supply. i-post has great relevance in the current situation. It ensures the safety of workers during power line maintenance.Proper functioning of street light is very important for the safety of pedestrians. Malfunctioning of street light is one of the causes for vehicle accidents. i-post informs KSEB office whenever the street light malfunctions and thus becomes a solution for all these problems

<u>Second Place:</u> Shared by two participants.

a) Project Topic : Ibot

Presenters : Robin Tommy, Aaditya Bhatiya, Kaustav Chakravorthy, Suraj and Hima jose

Project Discription: A social robot that talks and walks

b) Project Topic : City wide Water quality And Waste management

Presenters : Hemant kumar, Shubham saxena, Prabu V and Venkateshwaran R

Project Discription: City wide Water quality and Waste management: We propose to monitor the citywide quality of water and accumulated waste , and by doing so we intend to keep a check on the water quality level as well as the garbage collected level.Hence , take an action to either stop or warn the authorities concerned for water treatment and take a similar action for the waste to be collected and disposed. The solution is delivered using IoT concept. Thus keeping the involvement of manual labour at minimum and monitoring remotely using any device connected to internet.

Third Place:

a) Project Topic : UPASANA: Diagnostic Toolkit For ASHA Worker

Presenters : Vivek Sureshkumar, Joji John Varghese and Arun Krishna

Project Discription: Upasana is a non-invasive medical diagnostic toolkitdesigned to be used by ASHA workers so that they can measure thevital parameters of the patients in rural areas and transfer the datato the doctors at the hospital for diagnosis.

The winners were given attractive prizes. The winner of the first prize received Rs.50,000/-. The second prize was Rs.25,000/- each. The third prize was Rs.10,000/-. Sri. K Mohammed Y Safirulla IAS, Director, KSITM gave away the prizes.

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Conclusion

On evaluating the previous events like this, we can found that FYPM 2015 is better in terms of its participation, various subjects selected and also the relevance of the subjects dealt with. The speakers in the programme were eminent persons in their respective category and have made their presentations to the appreciation of the participants. The subjects like IoT are of recent origin and the speakers have made it familiar to the participants to a great extend. The project which won the first prize in the Project Contest attracted all the participants due to its public usability. The idea in this project called i-post is to inform the the KSEB office whenever the street light malfunctions are occurred. We have received such innovative ideas which will be beneficial to the general public through the Project Contest. So this is an inspiration to conduct such Project Contest in future also. Over all, the FYPM 2015 was a very great success.