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Minutes of 2nd GC meeting for CoE-Center for Internet of Ethical Things(CIET) held under the Chairpersonship of Secretary Department of Electronics, Information Technology, Bio-technology, Science and Technology

Venue: Conference Hall, M S Building.

Date: 08-05-2024 Time: 04:00 PM

Participants:

- 1. Dr. Ekroop Caur, IAS, Secretary, Dept of Electronics, IT, Bt and S&T.
- 2. Shri Darshan H.V., IAS, Managing Director KITS, Dept. of Electronics, IT, Bt and S&T.
- 3. Smt. Ruchi Bindal, IAS, Deputy Secretary, Dept of Electronics, IT, Bt and S&T.
- 4. Prof. Debabratha Das, IIIT- Bangalore
- 5. Shri Sanjeev Gupta, CEO, KDEM, representative of Chairman, KDEM
- 6. Shri Purushottam Kaushik, Head, center for the Fourth Industrial Revolution India, World Economic Forum- Mumbai.
- 7. Shri. Bhaskar Verma, Regional Head, Nasscom.
- 8. Shri. Ashok Chandak, Chairman, IESA.
- 9. Shri. Madhav Rao CEO, CIET.
- 10. Smt. Champa E, General Manager -IT, KITS.
- 11. Shri. Kannan V, Program Manager, IIIT-Bangalore.
- 12. Smt. Vijay Laxmi, AGM, KITS.

Smt.Champa, GM, KITS, welcomed the members present in the meeting and requested representatives from IIITB to present the status of CIET project. A detailed presentation was made by Prof. Madhav Rao about the progress made by the CIET till date.

1. Prof. Madhav Rao, CEO, CIET briefed about the IOT projects carried out in IIIT-Bangalore to the committee members namely IOT Rehab System, IOT based agricultural system (Auto Grow), Combating Security & Digital Twin, Privacy Preserved mobility, Smart Sniffer to make to predict milk spoilage, Smart Sniffer to classify Liquid Food products, Thermal Imaging — Contactless BP measurement, Customizable RISC-V Generation Tool — Patent Filed (Chipcron Pvt Ltd), Picture Transformed Signal Reconstruction for Tele-Healthcare, Ethical Policy Framework for Smart City IoT Interventions, Ethics-aware Framework for Large-Scale IoT Data Processing, Classroom Education with Braille-on-Mouse for Visually Impaired & Framework for Al models on IoT Systems.

Prof. Madhav Rao, CEO, CIET described about the ethical policy framework for the Smart City IoT Interventions. CIET has circulated the framework to all the stakeholders in the month of December 2023 and are yet to receive inputs from them. Stakeholder consultation meeting has been set up on 18th June 2024 and effort has been set up to include as many stake holders as possible so that lot of feedback/inputs can be received.

Prof. Madhav Rao mentioned that Prof. Amit and his team have come up with a web portal snippet. Based on the user inputs, this snippet will help in knowing how much ethical budgeting has been involved in a particular IoT application. This needs some pilot testing before it can be deployed on a full fledged fashion.

Prof. Madhav Rao, CEO, CIET described about the ethical policy framework for large scale IoT data processing. This framework is being developed by Prof.Chandrashekar and Prof.Vinu which related to privacy budgeting. This is one of the deliverables for ethical framework of software management. Using this ethical framework, some common workshop practices will be developed and shared it in a larger forum in December-2024.

2. Prof. Madhav Rao, CEO, CIET briefed the members about what has been achieved so far in CIET. He made a recap on the summary of the achievements made so far with respect to Publications, Patents, Startups, Collaborations, Faculty and students. New collaboration has been made with NIFTEM-Delhi to get support of domain expert. 3 patents were filed and 1 Indian patent was approved. 2 startups are being supported.

Deliverables Achieved in 2023-24 and Planned in 2024-25

Prof. Madhav Rao, CEO of CIET briefed about the IOT framework which basically deals with integrating Ethical components into the development of IOT. Various domains like Agriculture, Healthcare, manufacturing, Mobility, Smart City, Education and Software management. Since CIET has healthcare expertise, focus is more laid on this area to build up IOT. Recently there has been an effort to focus on Agri-tech domain as well.

Decision:

The Committee approved the deliverables achieved so far by CIET team.

03. Planned Activities for 2024-25

Prof. Madhav Rao, CEO, CIET described about the planned activities for 2024. The list included as below.

- 14th and 15th June 2024 -> RISC-V based Ethical IoT workshop for Karnataka students and startups.
- 18th June 2024 -> Workshop to finalize the policy draft on smart city
- Most of the agritech startups are building solutions in isolation. In order to support them, 2

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cohorts of pre-incubation program by FPO's are set up based on the problems faced by start ups and innovators. Each cohort will have 10 startups. Prof. Srikanth has already done an extensive homework related to collection of problems statements related to each district. His work could be of help to CIET as suggested by the Chair.

 Incubation program on security and privacy for smart city startups is planned in collaboration with Electronics City Industries Association

Decision:

The Committee agreed to the above planned activities and timelines.

04. Finalization of new deliverables for 2024-25

Prof. Madhav Rao, CEO, CIET mentioned about the new draft deliverables (enclosed) that were discussed on 28th Feb 2024 with Deputy Secretary-ITBT, GMIT-KITS, KDEM representative, EY representative and IIIT-B. CIET has requested to finalize the new deliverables for the same.

Decision:

The GC directed the KITS team to provide approval for the same in 10 days.

05. Budget and Manpower details:

Prof. Madhav Rao, CEO, CIET provided details on the budget, expenses and manpower requirements (current and future plan) of the CIET program.

Budget Details:

Rs in Lakhs

Year/ Budget	Year 1	Year 2	Year 3	Year 4	Year 5
Budget as per MOA	299.44	318.73	336.72	704.44	633.12
Budget Released	299.44	318.73			
Date of Release	10-01-2022	30-03-2024			
Balance	NIL	NIL	336.72		1

Budget Plan for next 6 months:

Balance as on 31-03-2024 is Rs. 302.6 Lakhs

(Rs. In Lakh)

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SI No.	Heads	Budget plan (April'24-Sep'24) for the balance on 31.03.2024			
1	Hardware	60.00			
2	Software	7.74			
3	Cloud Services	3.00			
4	AMC	0.00			
5	Manpower	74.90			
6	Capacity Building, Training & Innovation	22.00			
7	Conference & Travel	31.75			
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	Grand Total	207.97		
12	Institute Overhead	4.08		
11	Sub Total	203.89		
10	Experience Center & Out reach	0.00		
9	Patent	3.00		
8	Contingency	1.50		

Staff Details:

Present Staff Details		Hiring Plan and Salary per year			
Project Staff	6 nos	Project Staff	10 nos	Rs 90 lakhs	
MS & PhD Students	15 nos	Field Engineers	1 no	Rs 8 Lakhs	
UG intern Students	40 nos	MS & PhD Students	10 nos	Rs 36 lakhs	
Consulting Staff	2 nos	UG interns	50 nos	Rs 10 lakhs	
		Consulting Staff	3 nos	Rs 12 Lakhs	

Decision: The Committee agreed to the budget expenses and manpower requirements of the CIET program.

6. Overall Outcome:

Prof. Madhav Rao, CEO, CIET provided details on the overall outcome of the CIET program. Listed below are the details.

- 50 plus publications were developed on various areas like IoT systems, Hardware design, Cryptography solutions, Smart Manufacturing, Digital Twins, Smart Agriculture, Healthcare and others
- 2 patents were filed and 1 patent granted. Received 2 startups support
- 2 whitepapers were published related to Smart City and Smart Irrigation.

Decision:

The GC Committee approved the overall outcomes of the CIET program.

07. Sitting fees for the GC and PMC committee:

The sitting fees for the GC and PMC committee of Rs 2000/- per member was approved in the committee.

08. Key Recommendations/Suggestions

1. Shri Purushottam suggested the below mentioned things

- Field validation to be done while using IoT technology for the security breaches in Agritech based problems.
- While designing systems, we should concentrate on the principle that the systems provide help for the larger needy people.
- suggested to do a landscaping exercise on the real life uses cases worked upon by CIET team. This is to check if there are any global or local organizations/startups who are already working on these real life use cases and how they have attempted to solve the same. This would provide help in faster implementation of IoT systems. Shri Bhaskar Verma, Regional Head, NASSCOM agreed to get help from some of the startups.
- 2. Currently the issue faced by CIET team is that they are not able to productize the research and do a total technology transfer. In response to this, the committee agreed to take up startup incubation programs and thus achieve technology transfer.
- 3. The committee directed the CIET team to finalise on the revised deliverables in consultation with KITS
- 4. Shri Bhaskar Verma suggested we should focus on increasing the count of patent grants
- 5. CIET team was requested to provide the details on the stipend part to KITS, so that a closure can be provided.
- 6. As suggested by Shri Darshan, MD-KITS, there is a need for the implementation plan (taking help from startups, other related government departments) to be provided by CIET team for the various researches done by them.
- 7. Shri Darshan, MD-KITS agreed to provide help when there is a need to take consultation from other government and non-governmental organizations. So CIET team has been requested to copy him as well in such emails.

The meeting ended with the vote of thanks to the Chair.

[Dr. Ekroop Caur] Secretary,

Dept of Electronics, IT, Bt and

S&T

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