



**RE Hub
Management
System**

**Project Document
on Consultancy Project
Cyber Security**

**Doc. No : CBIT:REHub:01
Issue No : 01
Rev No : 00
Eff Date : 13-08-20
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CBIT, Hyderabad and Kernel Sphere, Hyderabad

**Project Title:
AI BASED TRANSFORMER MONITORING**

**Prepared by
Dr.N.Vasantha Gowri**

Checked by

Approved by

July 2020



Project Document

1.0 Project Summary:

- 1.1 Title of the Project : AI Based Transformer Monitoring
1.2 Project Coordinator : Dr.N.Vasantha Gowri
1.3 Project Leader &Team from CSE : Ms.G.Vanitha
1.4 Project Leader &Team from ECE : Mr.G.Mallikarjun Rao
1.5 Project Leader & Team from IT : Ms.T.Pratima
1.6 Project Leader & Team from EEE : Dr.N.Vasantha Gowri
1.7 Students involved in the Project

Sl.No	Name of Student	Roll Number	Branch
1.	Bolisetty Bhargav Sai	160117733301	CSE
2.	Sri Sai Dyavanapally	160117733049	CSE
3.	Abhay Singh Baloria	160117733061	CSE
4.	Sreshta Rushya Putchala	160117733140	CSE
5.	Rohit Dandamudi	160117733185	CSE
6.	Sai kumar Ramavath	160118734304	EEE
7.	N.Akshith	160117734074	EEE
8.	Y.Ranadeer	160117734317	EEE
9.	Nayskanti vinoothna	160117735145	ECE
10.	Gudaru Pragati	160117735134	ECE
11.	Syed Danish Hussaini	160117737057	IT

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1.8 Project synopsis:

Introduction : Distribution transformer is one of the important equipments in distribution network. It is proposed to monitor the distribution transformer present in the third party electrical network proposed by kernelsphere pvt ltd. It is intended to acquire the data from the network through sensors and that will be analyzed and the monitoring and control model will be designed.

Brief Description of the Project/System

The project named “ Artificial Intelligence based transformer monitoring “ is proposed by Kernelsphere Pvt Ltd. The proposal says that the distribution transformers in the field of third party are to be closely monitored and analytical models are to be developed.

Role of Kernelsphere:To implement all the required hardware including sensors in the field
 To provide the data to the team in CBIT to data analysis and project modeling
 To provide continuous technical support from Kernel sphere to the project

Role of CBIT : To acquire the data provided by Kernelsphere Pvt Ltd
 To analyze the given data to formulate better indicator and predictive models
 To work along with Kernelsphere pvt ltd to bring out a dashboard of the monitoring system

Co-ordinator : Dr.N.Vasantha Gowri, AP EEE CBIT
 Data analytics team : Ms.G.Vanitha AP,CSE , CBIT
 Ms.Pratima AP,IT CBIT
 User Interface (UI)Team : Mr.Govardhan Reddy AP,IT, CBIT
 Mr.Krishna Kernel Sphere
 Domain & installation : Dr.N.Vasantha Gowri, AP EEE CBIT
 Mr.Mallikarjun Rao, AP, ECE, CBIT

1.9 Critical Gaps

1. **Systems Design& Analysis:** Data for the analysis is yet to be released : Current analysis has been carried out by using sample data provided by kernel sphere
2. **Design vetting/simulation:** Number / scope of data analysis is yet to be finalized once acquirement of original data
3. **Development of subsystems:** subsystems in this project are the data monitoring and prediction models, which are made ready for the sample data
4. **Modeling of the system: --**
5. **Quality testing** : Will be done after hardware implementation
6. **Integration and Implementation:** Will be done after hardware implementation
7. **Performance evaluation:** Will be done after hardware implementation



1.10 Milestones:

Sl.No	Description of Milestone	Start Date	Finish Date – months from start	Dept. Involved
1.	<p>The Data is now being read directly from the api. The graphs for all time values as well as for last week are plotted along with the highlighted thresholds and a warning message if any value crosses the thresholds within the limits.</p> <p>Graphs for voltage lines are available in cv_ui.</p> <p>Power Factor Graphs are in pf_ui.</p> <p>Temperature, level graphs are in overview_ui.</p> <p>KW, KVA and Load prediction is done in KW_prediction.</p> <p>Along with the rmse values, a message is displayed to indicate if the load is expected to exceed within the next 24 hours.</p>		21 May 2020	CSE, EEE, IT
2.	<p>Fault prediction model with oil level, oil temperature, oil level and temperature alarms current voltage levels and other alarms with ARIMA model</p> <p>Power factor monitoring</p> <p>Analysis of THD, MD, Kw, KWh</p> <p>Graphs for VL1 VL2 and VL3 and line and phase currents were plotted</p>	22 April 2020	1 May 2020	CSE, EEE, IT
3.	<p>ARIMA model for oil temperature variations and alarms was created</p>	31 March 2020	22 April 2020	CSE, EEE, IT
4.	<p>Data analytics team informed that correlation was not identified for fault prediction</p>		19 April 2020	CSE, EEE, IT



5.	Status of data analytics part shared by Ms.G.Vanitha on Power factor monitoring and Fault prediction analysis. Suggested with few changes	31 March 2020	18 April 2020 (18 days)	CSE, EEE, IT
6.	Alarms and trips and power factor files we observed identified issues and other observation of the data was generated	31 March 2020	17 April 2020 (17 days)	CSE, EEE, IT
7.	Zoom meeting was conducted for CBIT IoT group and kernel sphere AI transformer project status was explained to kernel sphere	--	06 April 2020	CSE, EEE, IT
8.	Correlation between oil temperature and level sensor alarm readings for fault prediction has been reported by DA team	17 March 2020	03 April 2020 (17 days)	CSE, EEE, IT
9.	Fault prediction procedure was explained by Ms.N.V.Gowri to Ms.Sreshta to work with	--	01 April 2020	CSE, EEE, IT
10.	Date wise API link shared to DA team Date wise analysis on power and power factor work shared to DA team Reference paper for fault prediction has been shared by N.V.Gowri and asked Ms.Vanitha and Ms.Sreshta to refer the same	17 March 2020	31 March 2020	CSE, EEE, IT
11.	Transformer power factor data link was shared by Mr.Krishna Students were assigned to UI work Angular theme for dashboard was shared to UI team	17 March 2020	30 March 2020	CSE, EEE, IT
12.	DA team reported with current status and brought out models for Total Power Analysis (available and consumed power), Power factor analysis	13 March 2020	28 March 2020 (2weeks)	CSE, EEE, IT
13	Technical issues were resolved by Mr.Krishna		27 March 2020	CSE, EEE, IT



	More clarifications are provided to students working on fault prediction by Ms.N.V.Gowri			
14.	Some more inputs are given to UI team by Mr.Krishna and some data issues were raised by DA team and conveyed to Mr.Krishna on data acquisition	--	17 March 2020	CSE, EEE, IT
15.	CSE students Ms.Shresta and Bhargav were assigned with fault prediction analysis Appointment was requested to meet expert at BHEL through Dr.U.K.Choudhry director I&I	--	16 March 2020	CSE, EEE, IT
16.	Discussions were held at IT department regarding data analytics to be carried out further. Ms.N.V.Gowri explained about basics of transformer and ways of fault prediction of the transformer using the parameters available. Sample analysis on voltage and current levels have been carried out	11 March 2020	14 March 2020 (3 days)	CSE, EEE, IT
17.	Meeting was conducted by N.V.Gowri at CSE lab with data analytics team and few strategies for analysis were discussed. Mr.Govardhan AP IT has been assigned with UI design part	--	13 March 2020	CSE, EEE, IT
18.	Meeting was conducted Mr.Vinod	--	11 March 2020	CSE, EEE, IT
19.	Meeting with Mr.Vinod is rescheduled on 11 March 2020	--	10 March 2020	CSE, EEE, IT
20.	Sample analysis on oil temperature alarms and trips has been carried out by Ms.Pratima, Ms.N.V.Gowri and Ms.G.Vanitha and discussed the same with Mr.Krishna.	07 March 2020	09 March 2020 (2 days)	CSE, EEE, IT



21.	Students group was finalized and assigned for different works like DA and UI Meeting with Mr.vinod is postponed on 10 March 2020	--	07 March 2020	CSE, EEE, IT
22.	Abbreviations given in the transformer data are explained by Mr.krishna	--	06 March 2020	CSE, EEE, IT
23.	URL of existing transformer monitoring system was released to the team for analysis	--	05 March 2020	CSE, EEE, IT
24.	Meeting was conducted at placement office by NLN reddy sir and a sub-group was formed for AI based transformer monitoring project Link of cold storage monitoring system was shared to faculty members for basic analysis Meeting with Mr. Vinod is scheduled on 7 th March 2020	--	04 March 2020	CSE, EEE, IT
25.	WebEx meeting with Mr.Krishna, kernel sphere to get introduced to transformer monitoring projects	--	02 March 2020	CSE, EEE, IT
26.	Team identified to work on transformer monitoring project	--	26 feb 2020	CSE, EEE, IT

2. Project Details:

1. Monitoring of important transformer parameters
 1. Alert models for transformer condition / output monitoring
 2. Forecast models for power and demand
 3. Prediction of transformer faults
 4. Generation of User Interface for the given data / devices



Annexure-I

Project schedule

Sl no	Activity	1	2	3	4	5	6	7	8	9	10	11	12
1		■	■	■	■								
2						■	■	■	■				
3						■	■	■					
4						■	■	■		■	■		
5						■	■	■					
6										■	■	■	■
7										■	■	■	■
8										■	■	■	■

CBITGPSTRACKING PROJECT REPORT

CBITGPSTRACKING Project in Collaboration with Kernel Sphere. The project was initiated under COE, as a part of the MOU with Kernel Sphere for the IOT activities. The major objectives of the project are to develop an application for tracking of the CBIT Buses and providing the solution platform by implementing GPS Tracking solution with the help of IOT and AI.

Time Line of the Project:

1st Meeting held on 19th April 2020

2nd Meeting held on 22nd April 2020

3rd Meeting held on 18th May 2020

4th Meeting held on 17th July 2020

5th Meeting held on 1st August 2020

6th Meeting held on 19th September 2020

7th Meeting held on 2nd October 2020

Departments Involved : CSE , ECE , IT ,MCA and EEE

Tracking and Database Creation – CSE Dept.

Real time Location Dashboard & Alerts & API – IT Dept.

Mobile App & Reports – MCA Dept.

Admin Module – ECE Dept.

Login & Registration- EEE Dept.

Total **10 Faculties**, 02 industry technical persons and **24 students** involved actively in this Project, in count of CSE -07+3 EEE-03 ECE-04, IT-05 , MCA-02.

Meetings MoMs:

II Meeting of GPS Tracking Project

Date:Day:Time: 22nd April, 2020, Wednesday, 05:00 PM – 06:00 PM (Through WebEx id is: 787 428 670 Hosted By Krishna Mohan Kernel sphere Technical Person)

I Meeting held on 19th April 2020

Objective of the meeting:

To discuss the Objectives and assigned tasks of the GPS Tracking Project

To discuss the Roles of each department Activities under the Project

To identify the technical Specifications and roles of the Students in each module

To start the Project Modules, about the data, technical issues and Schedules

Discussed The

Technical and Tasks distributions assigned by Kernel Sphere

For the Project students of CSE, IT , MCA, ECE and EEE selected students interacted with Kernel Sphere Persons Mr Vinod and Mr Krishna Mohan

Discussed department wise tasks, clarified student's queries and instructed to all the coordinators to work on Static data after the lock down live data can be considered for the project.

From IT Dept and ECE Dept. Two more students will be added for the project because of the modules complexity

Members present in the meeting:

Mr.Vinod kumar, CEO, Kernel sphere Technologies(P) Ltd

Mr.Krishna, Senior software engineer, Kernel sphere Technologies(P) Ltd

Dr.Indira , Dept of MCA

Dr Sangeeta Gupta ,Dept of CSE

Ms.G.Vanitha, Dept. of CSE

Ms G.Kavitha, Dept of CSE

Ms G.Mamatha Dept of CSE

Ms.Trupthi, Dept. of IT

Mr.Rajesh Dept. of IT

Dr.N.Vasantha Gowri AP, Dept. of EEE

Mr.G.Mallikarjun Rao AP, Dept. of ECE

Selected Students from CSE IT MCA ECE and EEE

Deliberations made in the meeting:

Mr. Vinod kumar gave a brief Overview of the Project and Modules

Mr. Krishna Mohan discussed about the assigned the tasks of each department.

It was decided to add some static data later cbit buses and staff students modules need to be added for the tracking.

Mr.Vinod kumar and Krishna explained all the modules how to proceed for the task and clarified Queries from the Students.

Staff Dr Indira from MCA, Ms G.Kavitha and Ms G.Mamatha from CSE, Ms Trupthi from IT interacted with Mr Krishna Raised the issues in modules.

Dr. N.Vasantha Gowri, EEE interacted and suggested specifications

It was Decided that the same Watsup group need to be used for sharing the content with students and staff.

Ms G.Vanitha CSE dept informed that she will be reporting the status of the project and Coordinating with department staff and students. All the department Coordinators need to update the status of the work and issues, Ms G.Vanitha, will report to the Kernel Sphere and CBIT R&D.

Mr. Vinod informed to start the project from 23rd April 2020 in lock down start the work with static data later that can be changed to dynamic data.

III Meeting of GPS Tracking Project

Date: Day: Time: 18th May, 2020, Monday, 04:00 PM – 06:30 PM (Through BigBlue Button)

II Meeting held on 22nd April 2020

I Meeting held on 19th April 2020

Agenda :

To Review the tasks assigned for each department.

To discuss the activities and work carried out by the department.

Demonstration of Modules

Discussed The:

Technical Team of Kernel Sphere Mr Vinod and Mr Krishna Mohan attended and reviewed the discussion, Department CSE, IT, MCA, ECE and EEE student teams and Staff Coordinators.

1st CSE department presented demo for the assigned modules, Students Susmitha and Rakshitha presented demo for the assigned task Tracking and Database – all the sub modules assigned under the task is completed, No remarks and no changes and appreciated CSE team work by Kernel sphere.

2nd IT department presented demo for the assigned modules, Students Ameer and PreethiVardan presented demo for the assigned task Real time Location Dashboard & Alerts & API – all the sub modules assigned under the task is completed, No remarks and no changes and appreciated IT team work by Kernel sphere.

3rd MCA department presented demo for the assigned modules, Student Arun presented demo for the assigned task Mobile App & Reports – all the sub modules assigned under the task is done, suggested few technical additional things to the modules and informed that work will need to complete the tasks within two days.

Next ECE department presented demo for the assigned modules, Student Anjali presented demo for the assigned task Admin Module – all the sub modules assigned under the task is done, suggested few technical additional things to the modules and informed that work will need to complete the tasks within two days.

Next EEE department presented demo for the assigned modules, Student Rashmith resented demo for the assigned task Login & Registration – all the sub modules assigned under the task is done, suggested few technical additional things to the modules and informed that work will need to complete the tasks within two days.

Members present in the meeting:

Mr.Vinod kumar, CEO, Kernel sphere Technologies(P) Ltd

Mr.Krishna, Senior software engineer, Kernel sphere Technologies(P) Ltd

Dr M.SwamyDas HoD CSE

Dr. P. Narahari Sastry, ECE Dept

Dr.Indira , Dept of MCA

Dr Sangeeta Gupta ,Dept of CSE

Ms.G.Vanitha, Dept. of CSE

Ms G.Kavitha, Dept of CSE

Ms G.Mamatha Dept of CSE

Ms.Trupthi, Dept. of IT

Mr.K. Rajeshkanna Dept. of IT

Dr.N.Vasantha Gowri AP, Dept. of EEE

Mr.G.Mallikarjun Rao AP, Dept. of ECE

160117735009(Ece)

160118862017_mca Karthik sai kumar reddy

Ameer

anjali kancharlapally

Arun Kumar B

C.Shivajyothi

Nikhitha

Pavankalyan

Pragati

Preethivardhan

Rakshitha

Rashmith

Sisira

susmitha

Deliberations made in the meeting:

Mr. Vinod Kumar Reviewed the modules and other inputs to projects

Mr. Krishna Mohan discussed about the assigned the tasks of each department.

It was decided to add some additional things to the modules of MCA and ECE. In this regard Mr Krishna will send the revised Document.

Dr Naraharaasri EcE department suggested for queries alert in the module separate forum need for staff and students to raise their queries.

Mr.Vinod kumar and Krishna said that all the modules finished by all the teams within the time duration appreciated all the team members.

Mr. Vinod informed that once after lock down all the modules can deployed to real time environment after showing the demonstration to Principal and Management .

Minutes of Meeting

Date: 01-08-2020

IV Meeting of GPS Tracking Project

Date:Day:Time: 1st aug 2020 , Saturday , 4.00PM-5.30PM(on Webex)

III Meeting held on 18th May 2020

II Meeting held on 22nd April 2020

I Meeting held on 19th April 2020

Agenda:

- 1) To monitor the progress with the on going project .
- 2) To review the implementation of changes, discussed in last meeting.
- 3) Demonstration of modules.

Discussed the following points:

- 1) Technical Team of Kernel Sphere Mr. Vinod and Mr. Krishna Mohan attended and reviewed the demos given by students and staff coordinators.
- 2) IT department, preetivardhan and pavan presented the demo on assigned modules . They showed the working of alerts and sending of the messages whenever alerts were raised.
- 3) They also discussed the Significance of REST API in this application and about all the modules connected to database via REST API. Around 29 APIs are used for achieving various functionalities.
- 4) This Application supports two different types of tracker devices i.e tracker-DS and tracker-AIS.
- 5) The data collected from the above devices were stored in tracker and trackerlatest tables. (this was the change impemented by the CSE team).
- 6) Multiple tenant support is given.
- 6) Discussed about bulk sms gateway integration for SMS alerts.(regarding status of bus ,like overspeeding)
- 8) Krishna sir asked to make changes regarding SMS messages and to include sos button in web app also.
- 9) Vinod Sir stressed on the development of Mobile app on high priority basis.
- 10) Rakshitha from CSE department gave demo and showed the implementation of suggested changes discussed in the last meeting.
- 11) latitude and longitude values were replaced with geo location, ETA based on distance was changed to ETA based on traffic.
- 12) Redesigning of info window on dashboard was done.
- 12) Generation of GeoFence report is done.

- 13) Vendors data base was created. Triggers were added to tracker database.
- 14) MCA team discussed about insufficient number of resources for implementation of Mobile app and reports.
- 14) Vinod sir suggested to develop the app compatible with both android and iOS .
- 15) Vinod sir also suggested to integrate AI into the application and to further work on data analytics on the data collected .

Members present in the meeting:

Mr.Vinodkumar, CEO, Kernel sphere Technologies(P) Ltd
Mr.Krishna, Senior software engineer, Kernel sphere Technologies(P) Ltd
Dr. P. NarahariSastry, ECE Dept
Dr.Indira , Dept of MCA
Dr. Sangeeta Gupta ,Dept of CSE
Ms.G.Vanitha, Dept. of CSE
MsG.Kavitha, Dept of CSE
Ms.Trupthi, Dept. of IT
Mr.G.Mallikarjun Rao AP, Dept. of ECE
Deepak (from Industry)
CSE,IT,MCA students.

Deliberations made in the meeting:

Mr. Vinod Kumar Reviewed the modules and other inputs to projects
Mr. Krishna Mohan discussed about the tasks completed and pending and the time estimate for completion of the project.
It was discussed to include some additional resources to the complete modules of MCA Dept.

V Meeting

Date/Day/Time: 17th July, 2020 ; Friday 05:00PM - 06:00 PM

Objectives:

To give the Status about the Earlier Work of Vehicle Tracking System

To distribute the work for Live Data for the further project modules.

To share the responsibilities among the faculty and students of CSE and IT Department for the completion of the project with Live Data.

Members present for the meeting:

Digintrude: Mr. Krishna Mohan

CBIT Faculty: Ms. Vanitha, Dr. Sangeeta Gupta , G.Kavitha , G.Mamatha CSE Dept

Ms Trupthi , Mr Rakesh Kanna – IT Dept

Mr Mallikarjun Rao –ECE

CBIT Students: CSE and IT,

Deliberations made:

Ms G. Vanitha CSE Dept has started the meeting and explained the earlier modules of vehicle tracking project . She mentioned the requirements of the project and further requirements of the project to work with live data.

Mr. Krishna shared the things & requirement sheet of the project to update for the live data.

CSE Students and Coordinator G.Kavitha madam interacted with Krishna sir for the technical clarifications

IT Students and Coordinator M.Trupthi madam discussed regarding the modules is decided in the meeting that only few students as per the requirement participated in the discussion.

Mr Krishna informed that regarding Mobile APP for Gps tracking needed but that can be considered after the live data modules work.

Students of CSE and IT discussed technical issues with Mr Krishna.

Minutes of Meeting

Date: 02-10-2020

VII meeting of Gps Tracking Project

Date: Day: Time: 2nd October 2020 , Friday, 6.00PM- 7.30 PM (on Zoom)

VI Meeting of GPS Tracking Project

V Meeting held on 1st aug 2020

IV meeting held on 17th July 2020

III Meeting held on 18th May 2020

II Meeting held on 22nd April 2020

I Meeting held on 19th April 2020

Agenda:

- 1) To check the technical issues if any .
- 2) To review the implementation of assigned modules for CSE IT ECE MCA and EEE departments.
- 3) Running or Demonstration of modules. And Deicide the final demonstration

Discussed the following points:

- 1) Technical Person Mr. Krishna Mohan of Kernel Sphere attended and reviewed the demos given by students and staff coordinators.
- 2) CSE department Rakshita presented demo and showed the changes implemented in the info window of home page in the said format.
- 3) It is decided that final demo scheduled on 3rd October 2020 at 4'clock and three students are selected for Demo and department coordinators decided to present their report.

Members present in the meeting:

Mr.Krishna, Senior software engineer, Kernel sphere Technologies(P) Ltd

Dr.Indira , Dept of MCA

Dr. Sangeeta Gupta ,Dept of CSE

Ms.G.Vanitha, Dept. of CSE

MsG.Kavita, Dept of CSE

Ms G.Mamatha Dept of CSE

Mr R. Srikanth Dept of CSE

Ms.Trupthi, Dept. of IT

Mr Rajesh Kanna Dept of IT

Mr.G.Mallikarjun Rao, Dept. of ECE

CSE,IT, MCA students.

Deliberations made in the meeting:

Mr. Krishna Mohan discussed and reviewed about the tasks completed and pending reports work and the time estimate for completion of the project.

End Remarks:

All the major features are working fine

mobile app – demonstration completed

Scheduled the final demonstration on 3rd October 2020.

Minutes of Meeting

Date: 03-10-2020

Final Demo Meeting

VII meeting of Gps Tracking Project

Date: Day: Time: 3rd October 2020 , Saturday 4.00PM- 6.30 PM (on Zoom)

VI Meeting of GPS Tracking Project

V Meeting held on 1st aug 2020

IV meeting held on 17th July 2020

III Meeting held on 18th May 2020

II Meeting held on 22nd April 2020

I Meeting held on 19th April 2020

Agenda:

1) Demonstration and application running of complete Project

Discussed the following points:

- 1) CDC Director Heads of the Departments CSE ECE EEE IT, Faculty coordinators, staff and from Kernelsphere Mr Vinod Mr. Krishna Mohan attended and reviewed the final demo given by students and staff coordinators.
- 2) Students of CSE Rakshita, IT Department Preethi Vardan presented demo and presented complete presentation.
- 3) It is decided that final demo and one Driver application need to be added to the Project

Members present in the meeting:

Mr.Vinod CEO Kernel sphere Technologies(P) Ltd

Mr.Krishna, Senior software engineer, Kernel sphere Technologies(P) Ltd

Dr NLN Reddy , CDC Director

Dr M. SwamyDas Joint Director

Dr Suresh Pabboji

Dr Y.Ramadevi, HOD CSE
Dr Krishna Redddy HOD ECE
Dr Srinivas Reddy HOD MCA
Dr.Indira , Dept of MCA
Dr. Sangeeta Gupta ,Dept of CSE
Ms.G.Vanitha, Dept. of CSE
MsG.Kavita, Dept of CSE
Ms G.Mamatha Dept of CSE
Mr R. Srikanth Dept of CSE
Ms.Trupthi, Dept. of IT
Mr Rajesh Kanna Dept of IT
Mr.G.Mallikarjun Rao, Dept. of ECE
Ms I Srujana, Asst Prof CSE
Ms E Swathi, Asst Prof CSE
Mr G.Vivek Asst Prof CSE
Mr Srikanth R Asst Prof CSE
CSE, IT, MCA, ECE ,EEE students.

Deliberations made in the meeting:

Welcome Note Description By Dr NLN Reddy

Mr Vinod, Kernel Sphere addressed regarding overview Project and overview of the project and brief introduction regarding upcoming projects.

Ms G.Vanitha Project Coordinator Presented overview of the project and report

Students Rakshitha and Preeti Vardan presented all the modules and demonstrated project

Dr Krsihna Reddy inputs to mobile app and to improve the Locations with additional inputs

Dr Suresh .P discussed specific features of the projects with the students

Dr M.Swamydas given inputs to the functionality part to improve tha application

All the Coordinators appreciated the students effort and project application

Ms Vanitha Staff coordinator given end remarks and thank all the team memebers for the completion of the project

End Remarks:

Mr Vinod requested to implement mobile app interface for the driver Module All the major features are working fine declared by all the reviewers.It is Decided that Certificates to be issued for the staff and students for the credit of the project application Hope to see this application in real time Scenario.

Meeting Links :

[Webex Hosted By](#)

[krishna](#)

Mom

[KernelSpehere](#)

Recorded

Review MOM

Recorded

<https://collab.swecha.org/playback/presentation/2.0/playback.html?meetingId=8044d138bd137fee6ef25973ff035c9d5825ddf7-1589801524006>

Review MOM

Recorded

Review MOM

Recorded

https://drive.google.com/file/d/1_QwQ3LZrCratPKzwVZ

[FfXz0YhiJzW-WL/view?usp=sharing](https://drive.google.com/file/d/1ZWXIADQ7krRS1SfuD)

<https://drive.google.com/file/d/1ZWXIADQ7krRS1SfuD>

[mtlSi555veMAI3W/view?usp=sharing](https://drive.google.com/file/d/1ZWXIADQ7krRS1SfuD)

<https://drive.google.com/file/d/1pc9RgoLOYXIQAX4KO>

[w1zu0Ee6ccRn9Kw/view?usp=sharing](https://drive.google.com/file/d/1pc9RgoLOYXIQAX4KO)

<https://drive.google.com/file/d/1pc9RgoLOYXIQAX4KO>

[w1zu0Ee6ccRn9Kw/view?usp=sharing](https://drive.google.com/file/d/1pc9RgoLOYXIQAX4KO)

https://drive.google.com/drive/folders/1OLb_1AI2vWsCCP7cmVwb6sz7IM1D-

[x3?usp=sharinghttps://drive.google.com/file/d/1Uf561NfUjw8IKCHeryzkd2WCY8OqA-](https://drive.google.com/file/d/1Uf561NfUjw8IKCHeryzkd2WCY8OqA-)

[1k/view?usp=sharing](https://drive.google.com/file/d/1Uf561NfUjw8IKCHeryzkd2WCY8OqA-)

Communications :

This screenshot shows a Gmail interface on a desktop browser. The browser tabs include WhatsApp and 'MOM of Meeting - GPS Tracking'. The address bar shows a search for 'vinod@kernelsphere.com'. The Gmail search bar also contains 'vinod@kernelsphere.com'. The email is from 'Smt.G.Vanitha Assistant Professor' to 'CSE, IT, ECE, Placements, principal, MCA, EEE, advisor_rcg, Krishna, jalajenamala_sms, bcc: NLN, bcc: vasanthagouri_lee, bcc: M.Trupthi, bcc: indira.baddam, bcc: Sangeeta, bcc: gkavitha_cs'. The subject is 'MOM of Meeting - GPS Tracking System 22nd April2020'. The email body contains a greeting, a reference to an attached MoM, and a sign-off from Vanitha Gudda, Assistant Professor at CSE Dept, CBIT, Telangana, Hyderabad. An attachment titled 'MoM 22nd April 20...' is visible. The left sidebar shows the 'Mail' section with 'Inbox' at 1,070 items. The bottom status bar shows 26°C and the date 18-03-2022.

This screenshot shows a Gmail interface on a desktop browser. The browser tabs include WhatsApp and 'Vehicle tracking system MoM- 1'. The address bar shows a search for 'vinod@kernelsphere.com'. The Gmail search bar also contains 'vinod@kernelsphere.com'. The email is from 'jalajenamala SMS' to 'me, hod_cse, placements, hod_eee, hod_it, hod_eee, hod_mca, advisor_rcg, principal, krishna.mohan, vinod'. The subject is 'Vehicle tracking system MoM- 19.04.2020'. The email body contains a greeting, a reference to an attached MoM, and a sign-off from Dr. E. Jalaja, Associate Professor at SMS, CBIT, with contact information. An attachment titled 'MoM 19.04.2020' is visible. The left sidebar shows the 'Mail' section with 'Inbox' at 1,070 items. The bottom status bar shows 26°C and the date 18-03-2022.

WhatsApp | MOM of Meeting - GPS Tracking | +

https://mail.google.com/mail/u/0/#search/vinod%40kernelsphere.com/KtbxLthqDpDHhVtFtnPdCKnTTQMjTML

Lenovo Support | Lenovo | McAfee | Gmail | YouTube | Maps | Cisco Webex Meeti...

Gmail | Search: vinod@kernelsphere.com | Active | C.B.I.T.

Compose

Mail

- Inbox 1,070
- Starred
- Snoozed
- Sent
- Scheduled 1
- Drafts 28
- 21 JUL - 22 June SAR
- Chat +
- Spaces +
- GRID-IOT

Meet

- New meeting
- My meetings

Forwarded message

From: **Smt.G.Vanitha Assistant Professor** <gvanitha_cse@cbit.ac.in>
 Date: Wed, Apr 22, 2020 at 8:46 PM
 Subject: MOM of Meeting - GPS Tracking System 22nd April 2020
 To: CSE HEAD <hod_cse@cbit.ac.in>, IT HEAD <hod_it@cbit.ac.in>, ECE HEAD <hod_ece@cbit.ac.in>, Placements HEAD <placements@cbit.ac.in>, <principal@cbit.ac.in>, MCA HEAD <hod_mca@cbit.ac.in>, EEE HEAD <hod_eee@cbit.ac.in>
 Cc: <advisor_rcg@cbit.ac.in>, Krishna Mohan <krishna.mohan@kernelsphere.com>, <jalajaenamala_sms@cbit.ac.in>

Good Evening Sir / Madam
 This is G.Vanitha, CSE Dept. Here I am attaching MoM of Meeting held on 22nd April 2020, 5pm-6 pm, through Webex for the GPS tracking Project - Kernel Sphere
 This is for Your reference please find the attachment.

-- Regards
 VANITHA GUIDA
 Assistant Professor
 CSE Dept,CBIT
 Telangana, Hyderabad

MoM 22nd April 20...

26°C Clear | 23:46 | 18-03-2022

WhatsApp | Kernelsphere details - gvanitha | +

https://mail.google.com/mail/u/0/#search/Sales_rep%40kernelsphere.com/FMfcgwLTGldPHQXScLBwHKNjgdMQV

Lenovo Support | Lenovo | McAfee | Gmail | YouTube | Maps | Cisco Webex Meeti...

Gmail | Search: Sales_rep@kernelsphere.com | Active | C.B.I.T.

Compose

Mail

- Inbox 1,070
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- Chat +
- Spaces +
- GRID-IOT

Meet

- New meeting
- My meetings

Kernelsphere details

KernelSphere Sales <sales_rep@kernelsphere.com> to me
 Sat, Mar 27, 2021, 1:36 PM

Dear madam ,
 Please find the below details.

Director 1 :
 Vinod kumar
 DIN no : 06462591
 Mobile no : 9550418229

Director 2
 Jyothi Singh
 DIN no : 06451974
 Mobile no : 9390066059

MSME no : TS-02-0016956
 Company Registered date : 03/01/2013

Thanks & Regards
 Spandana

Smt.G.Vanitha Assistant Professor <gvanitha_cse@cbit.ac.in> Sat, Mar 27, 2021, 8:38 PM

26°C Clear | 23:44 | 18-03-2022

WhatsApp | Fwd: CBIT meeting PPT - gvanitha | +

https://mail.google.com/mail/u/0/#search/vinod%40kernelsphere.com/FMfcgwIXLbzlpXvcWHPHLPVchpk

Lenovo Support | Lenovo | McAfee | Gmail | YouTube | Maps | Cisco Webex Meeti...

Gmail | Search: vinod@kernelsphere.com | Active | C.B.I.T. | 26 of many

Fwd: CBIT meeting PPT [Inbox x]

Vinod Kumar <vinod@kernelsphere.com>
to Placements, Nin, S Rakesh, Smt.N.Vasantha, me, Sales

Tue, Aug 11, 2020, 5:55 PM

Dear Sir

Please find the PPT for tomorrow's meeting
Govri/Vanitha Madam - pl add anything missing in IoT (we need a brief point in PPT)
Rakesh Sir check Cybersecurity Part update me
The meeting is tomorrow at 11 am so suggest changes

Thanks & Regards ,
Vinod Kumar
Chief Executive

India: +91 (0) 9550418229
US : +1 2394914154
Email: vinod@kernelsphere.com
URL: <http://www.kernelsphere.com>

Mail: Inbox (1,070), Starred, Snoozed, Sent, Scheduled (1), Drafts (28), 21 JUL - 22 June SAR

Chat: +

Spaces: +

GRID-IOT

Meet: New meeting, My meetings

26°C Clear | 23:48 18-03-2022

WhatsApp | Gps Tracking report after adding | +

https://mail.google.com/mail/u/0/#search/vinod%40kernelsphere.com/KtbbxwglqKlWgKwMmPKWHWvLZXWcpLNpL

Lenovo Support | Lenovo | McAfee | Gmail | YouTube | Maps | Cisco Webex Meeti...

Gmail | Search: vinod@kernelsphere.com | Active | C.B.I.T. | 27 of many


Gps Tracking report after adding the tracking Details

Smt. G. Vanitha Assistant Professor <gvanitha_cse@cbit.ac.in>
to NLN, Krishna, CSE, Placements, Vinod

Wed, Jul 22, 2020, 2:59 PM

Sir as per our telephonic conversation iam attaching the Gps tracking report after adding the vehicle numbers and link for the tracking please find the attachment

...
VANITHA GUDA
Assistant Professor
CSE Dept, CBIT
Telangana, Hyderabad



Mail: Inbox (1,070), Starred, Snoozed, Sent, Scheduled (1), Drafts (28), 21 JUL - 22 June SAR

Chat: +

Spaces: +

GRID-IOT

Meet: New meeting, My meetings

26°C Clear | 23:47 18-03-2022

AS per our conversation Here iam attaching Gps Tracking details Under IOT. Kernelsphere activities all the minutes of about these activities communicated in earlier mail regarding smart campus the proposal status discussions communicated by Jalalaja Mam
Here iam attaching the Gps tracking report after adding the vehicle numbers and link for the tracking please find the attachment Status report please find the attachment.



**CHAITANYA BHARATHI
INSTITUTE OF TECHNOLOGY (A)**
Kokapet(Village), Gandipet, Hyderabad, Telangana-500075. www.cbit.ac.in



COMMITTED TO
RESEARCH,
INNOVATION AND
EDUCATION



Research and Entrepreneurship Hub

Cyber Security Detailed Report

Date: 11/10/2020

Sl.No	Date	Activity	Details
1	November 29, 2019	Signing of MoU	Mr. Vinod from KernelSphere Technologies along with Mr. Bhaskar Reddy-Advisor-RCG-CBIT, Dr. NLN Reddy-Director-CDC-CBIT and other officials from CBIT signed an MOU to officially launch the Cyber Security initiative. https://drive.google.com/file/d/1BJQywW7iWeiVaf3xwvlqs2iHFi8DcROx/view?usp=sharing
2	December 03, 2020	Identifying Faculty members	https://drive.google.com/file/d/1X9yVjUN3-c42jwVs5_r90HFM3NHqRDdL/view?usp=sharing
3	January 20, 2020	Circular regarding Cyber Security Orientation Program	https://drive.google.com/file/d/1f0EBSH5KHwKHN0t2-8f2Y1KwwNIhqDMI/view?usp=sharing
4	January 23, 2020	Meeting	https://drive.google.com/file/d/1ohBgiBT1BrHBe9pvz7uISUNLcdkyhaWX/view?usp=sharing
5	January 29, 2020	Preparation of Flex for publicity	https://drive.google.com/file/d/1v2RkcEPp_nZ7kWYr67wPICc6S15ot-EW/view?usp=sharing
6	January 31, 2020	Cyber Security Orientation Program	15 Staff members and 350 Students from CSE,IT,ECE and EEE were present.
7	January 31, 2020	Cyber Security Orientation Program Pictures	https://drive.google.com/drive/folders/1PnfXXR_LNyPBimcXEYGy8i5UOVuu1V_w?usp=sharing
8	February 1, 2020 to February 15, 2020	Cyber Security Campaigning	To bring awareness among the students of CBIT about Cyber Security. During this campaigning period students are supposed to prepare posters on various issues pertained to Cyber Security.
9	February 15, 2020	Circular regarding 2 nd Cyber Security Orientation Program	https://drive.google.com/file/d/19r3RUghiEt3MGuMQ4s19U3R4K_tN8JdX/view?usp=sharing
10	February 17, 2020	Cyber Security Orientation Program	250 Students from ECE, EEE, Mech, Civil and CHEM were present.

11	February 17, 2020	Cyber Security Orientation Program Pictures	https://drive.google.com/drive/folders/17e4N_37dQMxkjAY8GemwZH651fqR-zrU?usp=sharing
12	February 19, 2020	Cyber Security Poster Presentation Contest	25 Posters by IT Students, 12 Posters by CSE Students and 3 Posters by ECE Students. Total 40 Posters Presented by 100 Students from IT,CSE and ECE departments.
13	February 19, 2020	Cyber Security Posters presented by students	https://drive.google.com/drive/folders/1TxvKKjibvVwytFkRXBmTzbcCx8nTDRD?usp=sharing
14	February 29, 2020	Meeting	https://drive.google.com/file/d/1f2rvDNmEkM-u4krdyKYqdBGvWTCgRUQZ/view?usp=sharing
15	February 29, 2020	Installation of Software	We have installed Diginance and Digihunt tools in CBIT Servers
16	March 5, 2020	MoU with DSCI	Memorandum of Understanding ("MoU") is entered between Cyber Security Centre of Excellence (CCoE) a joint initiative of (DSCI AND Government of Telangana) and Chaitanya Bharathi Institute of Technology Dated 5 th March, 2020. https://drive.google.com/file/d/1J7wOB-we1XSRFbcBbcOqni4CGZkllQ3T/view?usp=sharing
17	March 2, 2020 to March 4, 2020	Collected credentials of important systems	Collected all credentials for Important Financial systems from Accounts section, Examination section(AEC), HR Department and Purchase department.
18	March 5, 2020	VA Assessment	Started Vulnerability Assessment of systems using Diginance tool
19	March 5, 2020	Vulnerability Analysis Tool (Diginance) training	29 CSE students, 18 IT students, 6 ECE students, 4 EEE students and 8 staff members from CSE, IT and ECE attended the training. Mr.Madhu Diginance Tool expert from Digintrude Infosec Pvt. Ltd. taken the session and explained about Diginance tool. This tool is used to perform Vulnerability Assessment of individual PC's.
20	March 6, 2020	Vulnerability Analysis Tool (Diginance) training	10 CSE students, 10 IT students and 5 ECE students attended the training.
21	March 17, 2020	Completed VA for selected critical systems	Completed VA for all critical systems and generated the reports.
22	March 26, 2020	Meeting	https://drive.google.com/file/d/16-bJ2qiNLd4PJ9QulKL_Y2j_62BPc1sI/view?usp=sharing
23	April 04, 2020	Meeting	https://drive.google.com/file/d/1oj0JNvECSnSG0GTPwgT5uKn1_fbeFaoj/view?usp=sharing
24	July 2020	Fixing the Vulnerabilities	Fix the Vulnerabilities present in the selected critical systems
25	5 th Aug 2020	Generated VA Report after Fixing	https://drive.google.com/file/d/149WDgUrAe2IwmdYMrjfH_1IdXUX764mK/view?usp=sharing

		the Vulnerabilities	
26	12 th Aug 2020	Vinod Presented the status of activities	https://drive.google.com/file/d/1U_gj5YD_E_krppnRUaytn9A03EF-bFcW/view?usp=sharing
27	September 02, 2020	Meeting	https://drive.google.com/file/d/1Z2DqOuuTRVABuTBRAZueMEHtPDld-ISC/view?usp=sharing
28	September 04, 2020	Meeting	https://drive.google.com/file/d/1iDlkt--wETxIvhoNpO_581xmo0qHN-tk/view?usp=sharing
29	September 05, 2020	VA training to staff	https://drive.google.com/file/d/1U96f1VqBAG6dP8_-EWZzbwV8nK5OtmG1/view?usp=sharing
30	September 05, 2020	A report on VA training to staff	https://drive.google.com/file/d/1jcYq5UjyNvg31_XiTitBtFwpaJwOFH9H/view?usp=sharing
31	September 17, 2020	VA training material	https://drive.google.com/file/d/1U_gj5YD_E_krppnRUaytn9A03EF-bFcW/view?usp=sharing
32	September 21, 2020	Cyber security new server requirement	https://drive.google.com/file/d/1S2GGVpqTYloqkE3umbSJoLH12mzDRte0/view?usp=sharing
33	September 22, 2020	Meeting with DSCI Team	https://drive.google.com/file/d/19YskPmZXcKQkyk51slzgE11CKzGJJO2o/view?usp=sharing
34	September 22, 2020	DSCI Engagement details	https://drive.google.com/file/d/1Y0FsRstEITeZl7w2rKgzTdHOx6Aj4DCL/view?usp=sharing
35	September 26, 2020	Meeting- Action plan of DSCI Activities	https://drive.google.com/file/d/1sOxCd46sPZhBaF1IihpN7NgOR5WqFgFs/view?usp=sharing
36	September 29, 2020	Updated DSCI Engagement details	https://drive.google.com/file/d/1DpytUtn-Vvdz9uwaFGG0Bxqy27JcGub/view?usp=sharing

Prepared by

S. Rakesh
Cyber Security Coordinator
Assistant Professor
IT Department
CBIT