

## IoT Club

### Department of Electronics and Telecommunication

Faculty Mentors: Prof Shreenivas B

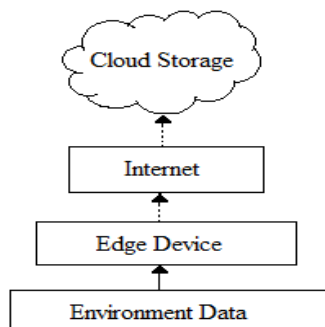
Student Coordinator: Charan K S (1BM19ET013) VI semester

### Two Project are completed by the students

#### Project 1: AGRI – The smart agriculture monitoring system based on IoT

AGRI system is a simple architecture of IoT sensors that collects the information of the environmental factors and sends it to the server through the Wi-Fi network and the real-time data can be obtained. The controller keeps monitoring the temperature, humidity, soil moisture, detection of rain, and the light intensity of the farming field. The main intention of the proposed model is to provide useful details of the agricultural land to the farmer. Financial Support from college: Rs.20,700/-

The best way to resolve agricultural issues to increase the quantity and quality of agricultural production is by using wireless sensor technology to make the field more and more intelligent. We created a module called an Agri system which senses the environment data such as relative air humidity, absolute air temperature, the moisture of the soil, light intensity, and rain frequency at the field.



The data acquired from the agriculture land were centralized into the server and used to highlight the impact of the measured factors of crops. The Agri system was placed on the agriculture land which contains the cauliflower plant and collected the continuous data of the environment parameters. The figure shows the collected sensed data from the farming land which contains the data collected from 6 AM to 7 PM where the water has been supplied at the 10 AM. The analysis of the impact of the environment parameters collected on the farming land is used to estimate the life of the crops.

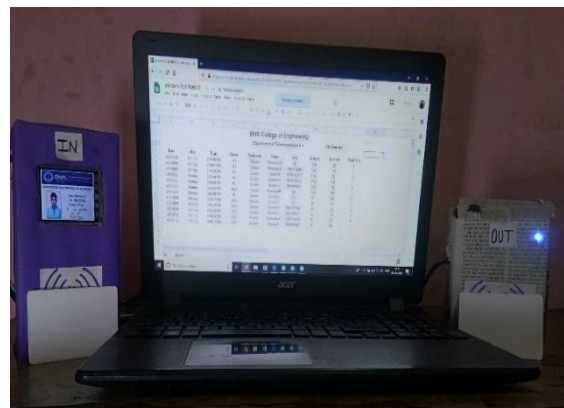
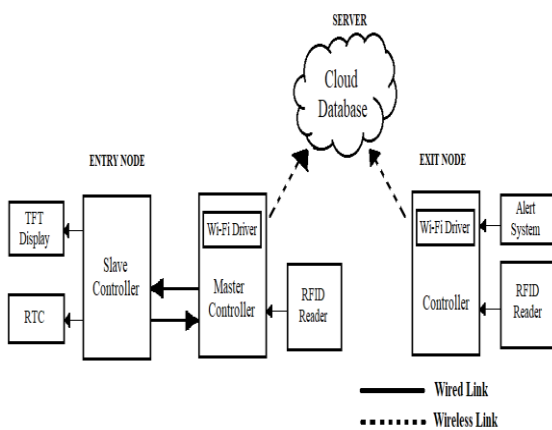
UPLOADED AT	SOIL MOISTURE	RAIN	LUMINOUS	HUMIDITY	TEMPERATURE
15-09-2019 06:00	976	1023	373.1	88	22
15-09-2019 07:00	972	1023	1923.82	90	22
15-09-2019 08:00	973	1023	4483.26	75	26
15-09-2019 09:00	965	1023	4209.32	69	27
15-09-2019 12:00	466	1023	6314.39	61	36
15-09-2019 13:00	471	1023	6553.99	49	31
15-09-2019 14:00	285	1023	6142.95	42	39
15-09-2019 15:00	322	1023	4705.32	48	33
15-09-2019 16:00	286	1023	3389.01	43	36
15-09-2019 18:00	393	1023	534.39	66	26
15-09-2019 19:00	262	1023	100.95	78	24

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### Project 2: SAS - Smart Attendance System

The RFID concept has been used to detect the student's presence so that the student's attendance will be marked present and the data will be uploaded to the server. The individual student will have a unique RFID card as an identity card so that the student should place their card near the reader before entering the class. Hence the system marks the presence and show the details on screen. This system is the incorporation of RFID, IoT, Web based technology to monitor, collect, store, and manipulate the data. The multiple nodes act as an internet-based node that is placed near the entry and exit door so that the data from the multiple nodes will be sent to the server.



Date	Day	Time	Status	Profession	Name	Usn	Subject	Teacher	Notif/Usn
4/27/2020	Monday	2:34:49 PM	IN	Teacher	Shrinivas B	SB	CR2	SB	1
4/27/2020	Monday	2:35:07 PM	IN	Student	Dharmaraj N	IBM17TE404	CR2	SB	1
4/27/2020	Monday	2:35:19 PM	IN	Student	Falah R	IBM17TE410	CR2	SB	1
4/27/2020	Monday	2:35:29 PM	IN	Student	Chaitra N	IBM17TE483	CR2	SB	1
4/27/2020	Monday	2:35:42 PM	IN	Student	Muskan K	IBM17TE421	CR2	SB	1
4/27/2020	Monday	3:24:35 PM	OUT	Teacher	Shrinivas B	SB	CR2	SB	1
4/27/2020	Monday	3:25:19 PM	IN	Teacher	Geeta C	CC	IP	CC	1
4/27/2020	Monday	4:12:27 PM	OUT	Teacher	Geeta C	CC	IP	CC	1
4/27/2020	Monday	4:15:13 PM	OUT	Student	Chaitra N	IBM17TE483	IP	CC	1
4/27/2020	Monday	4:15:29 PM	OUT	Student	Falah R	IBM17TE410	IP	CC	1
4/27/2020	Monday	4:15:42 PM	OUT	Student	Dharmaraj N	IBM17TE404	IP	CC	1
4/27/2020	Monday	4:15:57 PM	OUT	Student	Muskan K	IBM17TE421	IP	CC	1

The control unit input and outputs were compared and processed in real time. The above figures shows output of the TFT and relevant information are uploaded to the google spreadsheet.