

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Sl.No	Name of the Documents
1	NCC Report
2	Report on Internet of Things

6.5.1 NCC ANNUAL REPORT



Established in 1983

RBANM's FIRST GRADE COLLEGE

#12 Annaswamy Mudaliar Road, Opposite Ulsoor Lake, Bangalore 560042

Permanently Affiliated to Bengaluru City University, Re-accredited by NAAC

Recognized by Government of Karnataka and

Recognized under Section 2 (f) & 12 (B) of the UGC Act, 1956

NCC NAVAL UNIT ANNUAL REPORT

2023 - 24

NATIONAL CADET CORPS

1 KAR NAVAL UNIT



RBANMS FIRST GRADE COLLEGE

1 KAR NAVAL NCC UNIT

1. Name of the cell: NCC Naval Unit
2. Name of the coordinator: Sub.Lt. Banu Prakash H V (ANO)
3. Year: 2023 - 24
4. Number of cadets enrolled: 50
5. Objective of the program:
 - a. The NCC arms are developed in character commander-ship, disciplined, a secular outlook, the spirit of adventure and ideas of selfless service amongst young citizen.
 - b. To create a human resource of organized trained and motivated youth to provide leadership in all the walks of life and be always be available for the service of the nation.
 - c. To provide suitable environment to motive the youth to take up a career in the armed forces.

Report: RBANM'S FIRST GRADE COLLEGE, NCC Naval unit has strength of 50 cadets. It is functioning under the guidance of 1 KAR NAVAL UNIT.


Sub.Lt. BANUPRAKASH.H.V.
Associate NCC Officer (A.N.O)
1 KAR NAVAL UNIT NCC
R.B.A.N.M'S First Grade College
Bengaluru - 560042


PRINCIPAL
R.B.A.N.M'S First Grade College
No. 12, Annaswamy Mudaliar Road
BANGALORE - 560042.
Ph : 25512976

The Following Are the Various Activities Created Out by The NCC Unit During 2023-24 Academic Year

NCC Activity Undertaken from April 2023 To March 2024

1. 28th April 2023 to 7th May 2023, Waterman ship (WTC) camp was held in MEG Centre, Ulsoor Lake where 10 cadets had participated in the camp





GPS Map Camera



Bengaluru, Karnataka, India

#12, RBNMS First Grade College, Sivanchetti Gardens,
Bengaluru, Karnataka 560042, India

Lat 12.981309°



GPS Map Camera



Bengaluru, Karnataka, India

#12, RBNMS First Grade College, Sivanchetti Gardens,
Bengaluru, Karnataka 560042, India

Lat 12.981309°



GPS Map C

Bengaluru, Karnataka, India

#12, RBNMS First Grade College, Sivanchetti Gardens,

Bengaluru, Karnataka 560042, India

Lat 12.981309°

Long 77.601130°

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GPS Map C

Bengaluru, Karnataka, India

#12, RBNMS First Grade College, Sivanchetti Gardens,

Bengaluru, Karnataka 560042, India

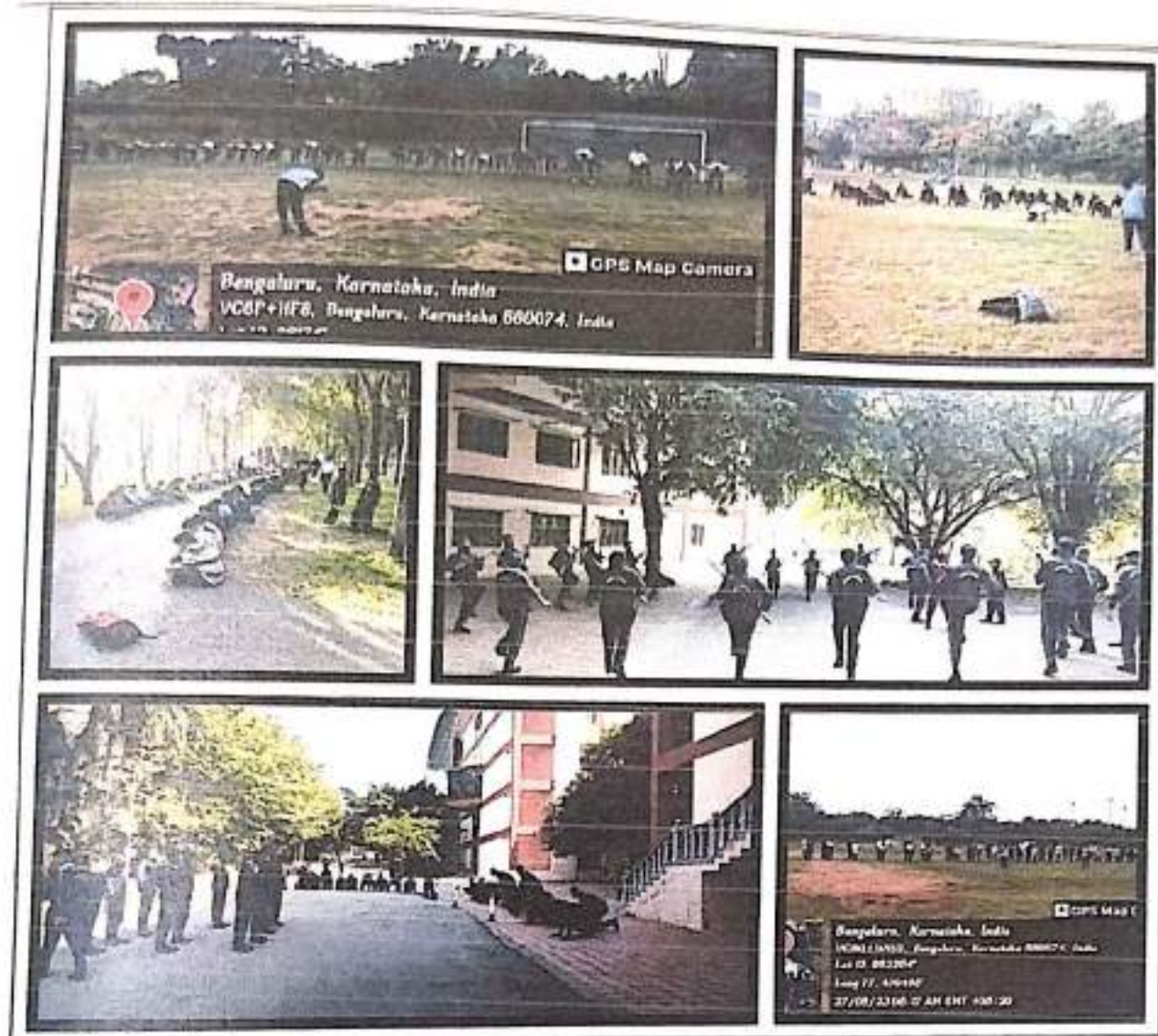
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Long 77.601130°

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From 26th May 2023 to 04th June 2023, Annual Training Camp (ATC) CAMP was held in Christ College, where 14 cadets had participated in the camp.





27th May 2023, PO CDT Manu Harsh had attended AINSC (ALL INDIA NAUSIK CAMP) held at Karwar.



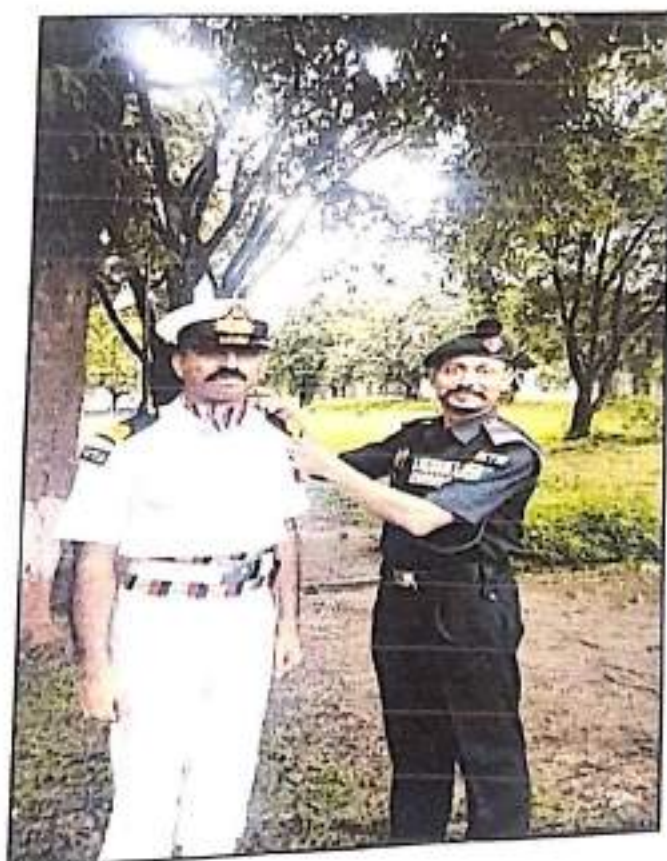
On 5th June 2023, World Environment Day was observed by Cadets along with ANO, and other faculties of the college, Plant Saplings were planted in and around the college campus creating Eco-friendly Environment.



From 8th June 2023 to 19th June 2023, CDT Capt. Manoj Kumar & PO CDT. Keshava had attended ship attachment camp, Kochin & Visited the INS SUTLEJ (Best Survey Ship 2019)



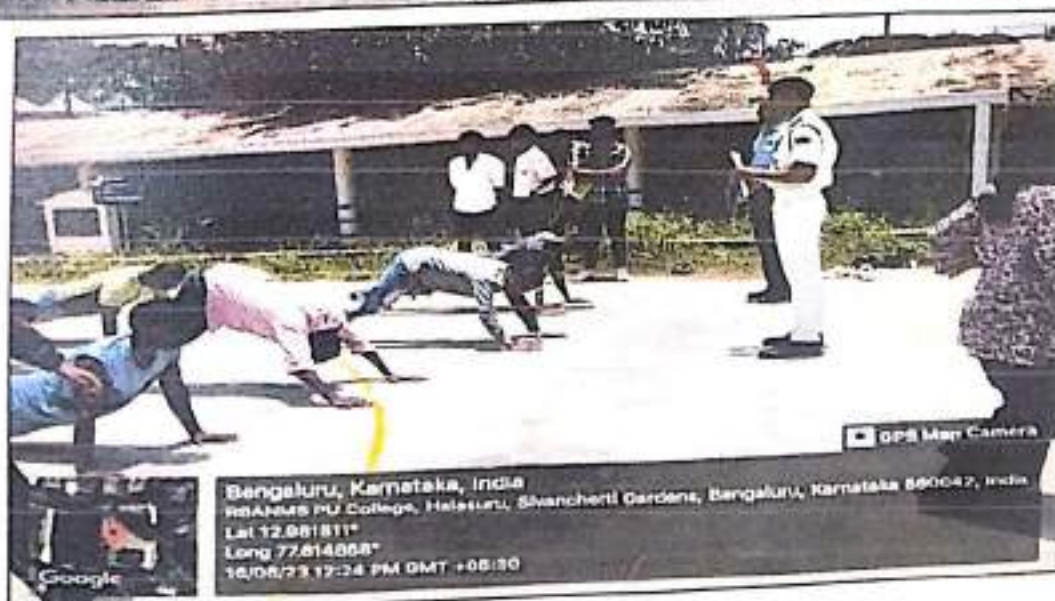
From 12th June 2023 to 9th September 2023, Caretaker Banuprakash H V had attended OTA (officer Training Academy, Kamptee, Nagpur) NCC PRCN(Pre-Commissioned Course) & had Commissioned as officer rank of Sub.Lieutenant.



On 15th August 2023, the Occasion of 77th Independence Day was celebrated by our Cadets and the program was presided by our Principal Dr.Chethan Bajaj, Flag Hoisting was done at 09:00 AM, Ranks was distributed for our Cadets by Unit PI Staffs and Principal, then our Cadets also participated in the program held at RBANMs Ground.



16th August 2023, First year cadet's selection for Naval wing was conducted in our college campus on 16.08.2023



23rd september 2023, 06 cadet's participation in PunithSagar Abhiyan program in association with 1 kar Naval Unit in Ulsoor lake.



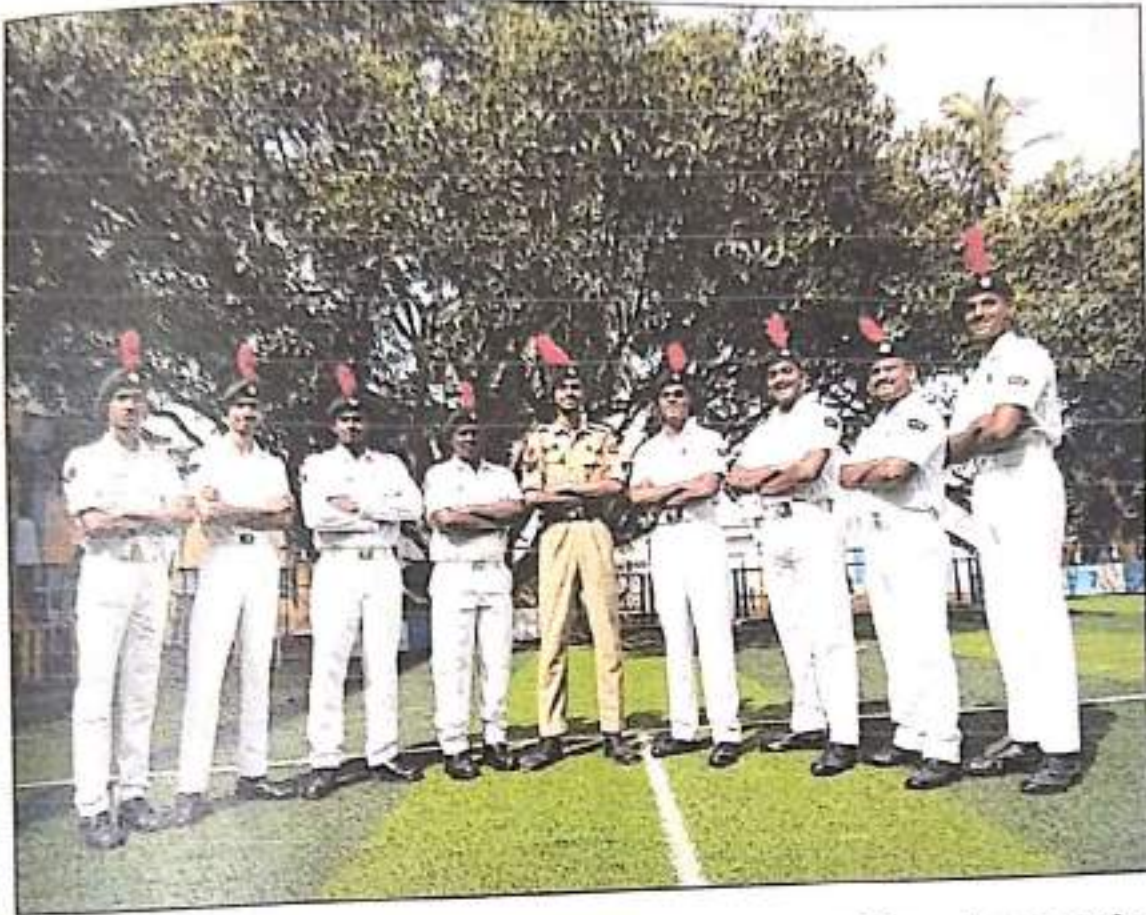
On 2nd October 2023 on the event of 'Gandhi Jayanthi' was celebrated by our Cadets and the program was led by ANO and Teaching Staffs where they honored the Great leaders.





. From 14th November 2023 to 23rd November 2023, Combined Annual Training Camp (CATC) was held in Silicon City College, were 04 cadets had participated in the camp.





26th November 2023, Constitution day was celebrated by cadets by taken oath and saluting the National flag.





4. 4th December 2023, 10 cadets participated in Navy Day celebration held in Christ University.



15. On 11th December 2023, International Millets Day was celebrated by the cadets in the AV Room and Mr. Sheethal Kiran, Physical Education Dept. Gave a presentation on the importance of millet's in day to day life.



16. 20th December 2023, cadets have participated in Drug awareness program organized by our institution in association with commercial street police station in AV room.



18. From 8th January 2024 to 19th January 2024, Cadet Shireesha D had participated in 10 days EBSB camp in Toranagalu, Bellary.



19. On 12th January 2024, Vivekananda Jayanthi was celebrated in the college in association with NCC Army wing & NCC unit where 30 naval Cadets had participated in the program.

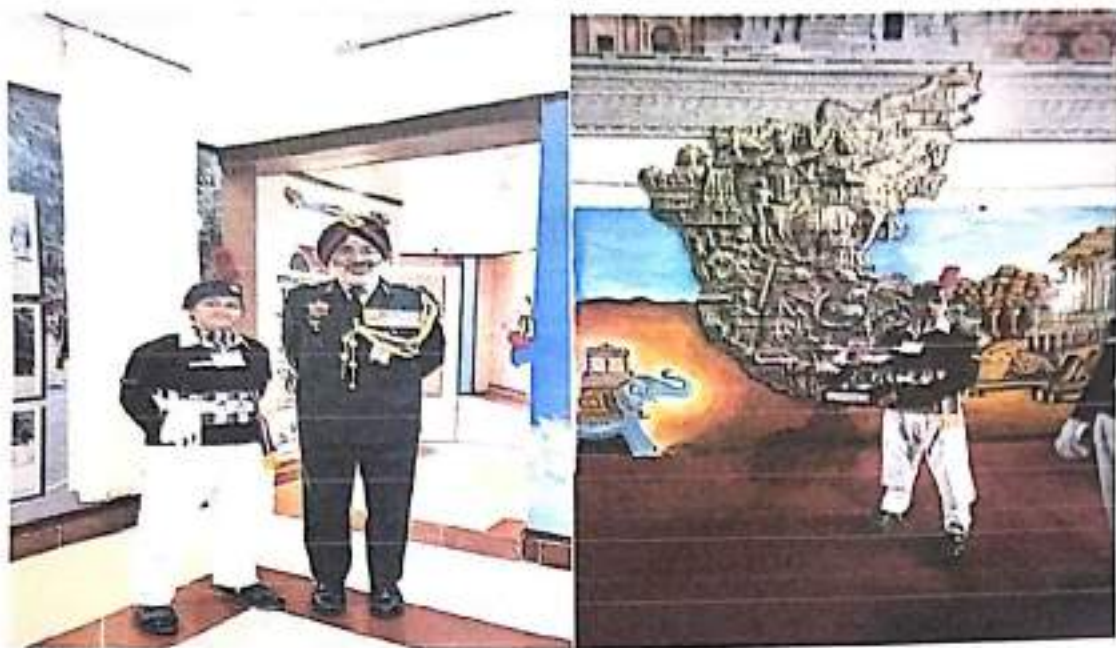


17. 26th Jan 2024, Republic day was celebrated by the cadets and program was presided by our principal Dr.Chetan Bajaj in the presence of other professors, staffs and cadets of the institution.



20. From 28.12.2023 TO 07.02.2024, 03 cadets from our institution had participated in Republic day camp in Delhi,2024.





21. 'B' Cert Examination had been conducted in Maneskaw parade ground and Army Public School, Bengaluru on 10-02-2024 & 11-02-2024.



Bengaluru, Karnataka, India
XJ04+96H, Shivaji Nagar, Bengaluru, Karnataka 560001, India
Lat 12.976636°
Long 77.606602°
10/02/24 09:32 AM GMT +05:30

GPS Map Camera



Bengaluru, Karnataka, India
86, Commercial Street, Shivaji Nagar, Bengaluru, Karnataka 560001, India
Lat 12.976613°
Long 77.606667°
10/02/24 09:31 AM GMT +05:30

GPS Map Camera



Bengaluru, Karnataka, India
86, Commercial Street, Shivaji Nagar, Bengaluru, Karnataka 560001, India
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Long 77.606669°
10/02/24 09:30 AM GMT +05:30

GPS Map Camera

22. 'C' certificate examination had been conducted in Maneskaw parade ground and Army Public School, Bengaluru on 17-02-2024 & 18-02-2024



SPECIAL ACHIEVEMENT OF CADETS
2023-2024

1. PO Cdt. Harshitha S had received **Best SW Cadet Award** in IGC camp, 2024.
2. PO Cdt. Harshitha S had been selected as best briefer and she has briefed following dignitaries as follows
Vice president of India- Jagdeep Dhankar, Chief of Naval Staff- Admiral R Hari Kumar & Chief of Army Staff- General Manoj Pandey.
3. PO Cdt. Harshitha S had been awarded with **DG Medal** for representing Kar & Goa Directorate in RDC 2024.
4. PO Cdt. Bipin BA had been selected as **All India Guard of Honour team**, RDC 2024.
5. PO Cdt. Bipin BA had been awarded with **DDG commendation award** for representing Kar & Goa Directorate in RDC 2024.
6. Cdt. Lakshmeesha had been awarded with **DDG commendation award** for representing Kar & Goa Directorate in RDC 2024.
7. **1 Kar Naval Unit** received **Best Minor unit award** for Kar & Goa Directorate, RDC 2024.


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ANO's Activities - Sub.Lt.Banuprakash H V:

Caretaker Banuprakash H V had attended OTA (officer Training Academy, Kamptee, Nagpur) NCC PRCN(Pre-Commissioned Course) From 12th June 2023 to 9th September 2023 & had Commissioned as officer rank of Sub.Lieutenant.

Our NCC unit has really succeeded in building the character of its cadets and in channelizing their energies towards Nation Building Activities and has produced several cadets with 'B' & 'C' Certificate holders which has been an inspiration and moral boost for the upcoming students to join in NCC and enthusiastically take up more Challenges and Achievements in their career goal.

Thank You

JAI HIND...!!


Signature of ANO

Sub.Lt.Banuprakash H V
Sub.Lt. BANUPRAKASH.H.V.
Associate NCC Officer (A.N.O.)
1 KAR NAVAL UNIT NCC
R.B.A.N.M'S First Grade College
Bengaluru - 560042


Signature of Principal

Dr. Chetan Bajaj
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6.5.1 REPORT ON INTERNET ON THINGS



RBANM's
First Grade College

Date: 10.11.2023

Circular

As an initiative of the IQAC, the department of Computer Science is organising an workshop focused on the “**Internet of Things**” (IOT) designed to enhance the knowledge and skills in this rapidly evolving field for IInd and IIIrd year BCA.

The Main Highlights of Workshop:

- **Introduction to IOT:** Understand the basics and applications.
- **Hands-on Sessions:** Engage in practical projects and demonstrations.
- **Expert Talks:** Insights from industry leaders and IOT specialists

The workshop will be held from **22.11.2023 to 29.11.2023** between **9:00 AM to 4:00 PM** at **Computer Science first floor lab**. The duration of the workshop is **60 hours**.

Students are hereby informed to attend the workshop compulsorily and make use of this opportunity to enhance your knowledge.

BCA department

for M. Q. J.

for Principal
Principal

RBANMS FIRST GRADE COLLEGE

Annaswamy Mudaliar road, Bengaluru -560042

DEPARTMENT OF COMPUTER SCIENCE



WORKSHOP REPORT ON INTERNET OF THINGS

Resource Person: Dr Manjunath M

Sl. No	Table Contents	Page Number
01	Introduction	1
02	Resource Person Profile	1
03	Introduction of IoT	1
04	Objective of IOT	2
05	Projects	2
06	Outcome	8

RESOURCE PERSON:

Dr Manjunath was working as an assistant professor in **RV College of engineering** and now as a project trainer in freelancing. He had conducted the workshop in an interesting and efficient way where all the students actively took part and he provided the devices, equipment, sensors and other requirements to the students for getting hands on practice.

REPORT ON IOT WORKSHOP:

An IOT workshop was initiated by the **Department of Computer Science**. The workshop went on from 22/11/2023 to 29/11/23 for 7 days and each session went for about 8 hours.

The Objectives of IoT (Internet of Things) projects typically include:

Connectivity: Enable devices to communicate and share data over the internet, fostering seamless connectivity.

Data Collection: Gather and analyse data from diverse sources, generating insights for informed decision-making.

Automation: Implement automation to enhance efficiency, reduce human intervention, and optimize processes.

Remote Monitoring: Facilitate real-time monitoring of devices and systems from anywhere, improving control and responsiveness.

Interoperability: Ensure compatibility and interaction between various IoT devices and platforms for seamless integration.

Security: Implement robust security measures to safeguard data and ensure the privacy of users.

Energy Efficiency: Utilize IoT to optimize energy consumption, promoting sustainability and cost-effectiveness.

Enhanced User Experience: Improve user experiences by providing innovative and convenient solutions through IoT technologies.

Predictive Analytics: Utilize data analytics to predict trends, failures, or anomalies, enabling proactive actions.

Scalability: Design projects to scale easily, accommodating the growth of connected devices

and evolving requirements.

Cost Reduction: Implement IoT to streamline operations, reduce manual efforts, and potentially cut costs in various domains.

Environmental Impact: Address environmental concerns by employing IoT for smart resource management and sustainable practices.

Innovation: Foster innovation by exploring new possibilities and applications in different industries using IoT technologies.

Accessibility: Enhance accessibility to information and services through IoT, making them available to a broader audience.

Improved Decision-Making: Provide data-driven insights that empower better decision making at individual, organizational, or societal levels.

Syllabus Content:

- Introduction of IoT
- IoT Overview
- IoT For everyone
- Application of IoT
- Raspberry Pi
- Sensors and its application
- Challenges in IoT
- Live Demo and Projects

Projects on IoT:

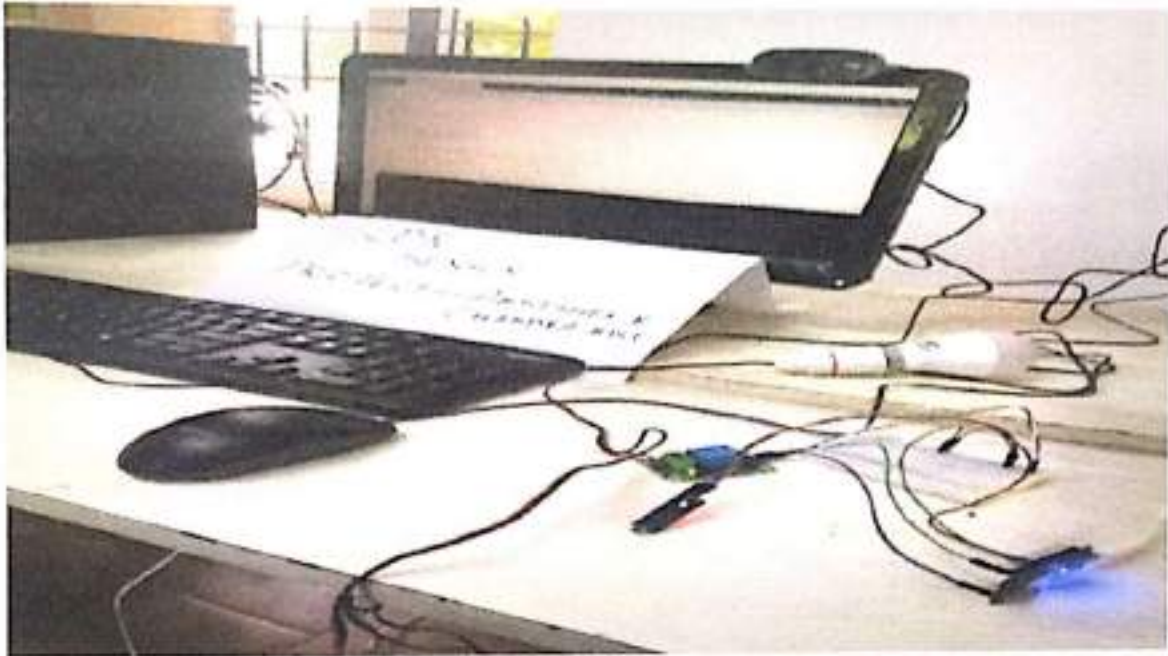
1. Flame Sensor

A flame sensor frequently responds faster & more precisely as compared to a heat or smoke sensor because of the mechanisms it utilizes to notice the flame.



2. Touch Relay Sensor

A touch relay sensor typically works by detecting changes in capacitance when touched. When a conductive object, like a human finger, meets the sensor, it alters the capacitance, triggering the relay to open or close a circuit. This can be used for various applications, such as turning lights on/off or activating electronic devices.



3. Face Recognition

Face recognition involves using algorithms to identify and verify individuals based on facial features captured by a camera. It typically includes face detection, feature extraction, and matching against a database for identification or authentication purposes.



4. Rain Detector

Rain detectors use sensors to detect raindrops or the presence of moisture. Common types include resistive sensors that change resistance when wet, capacitive sensors that detect changes in capacitance due to water, and optical sensors that rely on reflections or interruptions of light by rain. When the sensor detects rain, it triggers a response, such as activating windshield wipers or signaling an alert.



5. Face Detector

Face detector is a computer vision algorithm that analyses images or video frames to identify and locate human faces. It often relies on pattern recognition and machine learning techniques, such as Haar cascades or deep learning models. These algorithms detect facial features, patterns, or structures, allowing applications to identify and draw bounding boxes around faces within images or video streams.

6. Temperature Humidity Sensor

A temperature humidity sensor measures both temperature and humidity levels in the surrounding environment. It typically utilizes a combination of sensors to detect these parameters and provides corresponding output signals for monitoring or control purposes.



7. Buzzer Sensor

A buzzer sensor typically produces sound when an electrical signal is applied to it. It often has two wires – one for power and one for ground. Connect the power wire to a voltage source, ground wire to ground, and when you send a signal (voltage) to the buzzer, it generates a sound. The duration and frequency of the sound may vary based on the input signal.

8. Photo Capture

To capture a photo on your device, open the camera app, focus on your subject, and press the shutter button. Make sure to grant the necessary camera permissions if prompted.

9. Telegram Operators

Light Telegram operators typically refer to lightweight messaging applications like Telegram. They operate by allowing users to send text, media, and other files through a cloud-based platform. Users can create groups, channels, and engage in private or group conversations with end-to-end encryption for added security. The platform works across various devices and supports features such as stickers, voice messages, and file sharing.



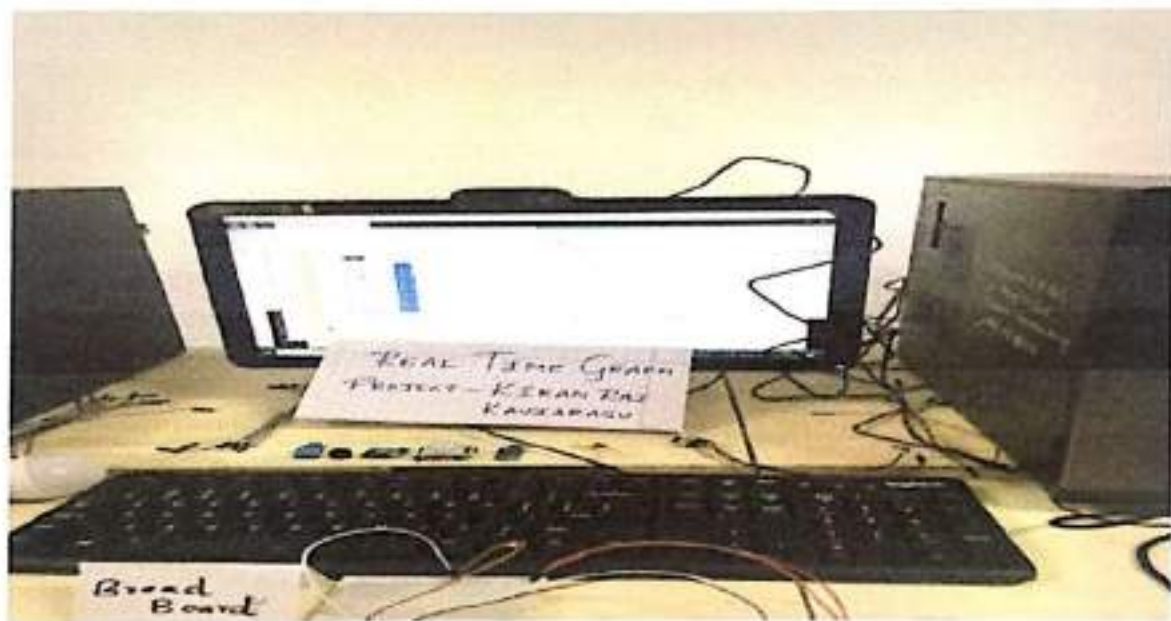
10. Siren Sensor

A siren sensor works by detecting specific stimuli, usually sound or movement, and triggering a siren or alarm in response. For instance, a sound-activated siren sensor picks up certain sound frequencies or loud noises, activating the siren when the preset threshold is reached. Similarly, a motion-activated sensor responds to movement within its detection range, signaling the siren to alert of potential intruders or disturbances. The basic idea is to sense a predefined condition and initiate the siren as a warning or deterrent.

11. Ultrasonic sound using relay

A relay is an electrically operated switch. When an electrical signal is applied to its coil, it switches the connected circuit on or off. In the context of a bulb, a relay can control its power supply. For example, when you turn on a switch, it sends a signal to the relay's coil, allowing electricity to flow to the bulb and light it up. Turning the switch off interrupts the signal, and the relay disconnects power, turning off the bulb. Relays are often used to control high-power devices with low-power signals.

Ultrasonic sound works by emitting high-frequency sound waves (ultrasonic waves) beyond the range of human hearing, typically above 20,000 hertz. These waves can be used for various applications, including distance measurement, object detection, and medical imaging. The emitted waves reflect off surfaces and are detected to gather information about the surrounding environment.



12. Light the Bulb using telegram.

Lighting a bulb involves passing an electric current through a filament, which heats up and produces light due to incandescence or by exciting gas molecules in a fluorescent bulb. LED bulbs use semiconductor materials to emit light when current passes through them.



OUTCOME: Students completing the IoT workshop will gain a comprehensive understanding of IoT fundamentals, including devices, networks, and architecture. They will develop practical skills, sensor/actuator interfacing, and IoT protocol implementation. Additionally, students will design and develop innovative IoT projects, cultivate essential teamwork and communication skills, and prepare for IoT certification. Upon completion, students will possess practical knowledge and skills in IoT development.

The students developed almost 12-20 live projects and other smart devices using sensors and relay models and live demonstrations were done by the students at the last day of the workshop and displayed in an exhibition where the PU college students, other department students and faculties were invited to the demonstration.

for *Pushpalatha KR*
Principal

IOT work shop Attedance sheet

BCA II nd year

Sl.No	NAME	22-Nov	23-Nov	24-Nov	27-Nov	28-Nov	29-Nov
1	AISHWARYA	1	2	3	4	5	6
2	SUNITHA	1	2	3	4	5	6
3	SHRAVANI	1	2	3	4	5	6
4	SHERIN	1	2	3	4	AB	5
5	ABHISHEK	AB	AB	AB	1	2	3
6	CHANDRA	1	2	3	4	5	6
7	KIRAN	1	2	3	4	5	6
8	ELAVARASAN	1	2	3	4	5	6
9	KAVIARASAN	AB	AB	AB	1	2	3
10	SHIVA KUMAR	AB	1	AB	2	3	4
11	NAREN KANNA	AB	AB	AB	1	2	3

BCA III nd year

sl.no	NAME	22-Nov	23-Nov	24-Nov	27-Nov	28-Nov	29-Nov
1	JAY KIRAN	1	2	3	4	5	6
2	BHUMIKA	1	2	3	4	5	6
3	DEENA DAYAL	1	2	3	4	5	6
4	POOJA	1	2	3	4	5	6
5	GUNJAN KUMAR	1	2	3	4	5	6
6	JESUS TONY REYMOND	1	2	3	4	5	6
7	SINDHU	1	2	3	4	5	6
8	BALAGURU	1	2	3	4	5	6
9	DEEPAK	1	2	3	4	5	6
10	ANANDHAN	1	2	3	4	5	6
11	GARGI THAKUR	1	2	3	4	5	6
12	MANOJ KUMAR	1	2	3	4	5	6
13	NIVETHA	1	2	3	4	5	6
14	SEVASANKARI	1	2	3	4	5	6
15	PRAVEEN KUMAR	1	2	3	4	5	6
16	NARANE	1	2	3	4	5	6
17	SUDEEP	1	2	3	4	5	6
18	ARAVINDAN	1	2	3	4	5	6
19	NAVEEN	1	2	3	4	5	6
20	LOCHAN RAJ	1	2	3	4	5	6