A.S.D.GOVT. DEGREE COLLEGE FOR WOMEN (A)

(Re-Accredited with 'B' Grade by NAAC)
(Affiliated to Adikavi Nannaya University)
Jagannaickpur, Kakinada.

DEPARTMENT OF COMPUTER SCIENCE

స్త్రీ విద్యా ప్రవర్ధతాం

NATIONAL SCIENCE DAY

CELEBRATIONS

2021-2022

A.S.D. GOVT. DEGREE COLLEGE FOR WOMEN (A)
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<u>Activity Register 2021-2022</u>

Date	28-02-2022
Conducted through (DRC/JKC/ELF/NCC/NSS/ Departments etc.)	Department of Computer Science
Nature of Activity (Seminar/Workshop/Extn. Lecture etc.,)	National Science Day Celebrations
Title of the Activity	Poster Presentation, App Expo and Project Display
Name of the Department/Committee	**COMPUTER SCIENCE**
No. of students participated	40
Brief Report on the activity	To make the students to aware on recent technological advancements and to improve their technical and Communication skills
Name of the Lecturers who Planned & conducted the activity	N. Naga Subrahmanyeswari G.Satya Suneetha
Signature of the Dept. In-Charge /Convener of the Committee	N. N. S. Eswari
Signature of the Principal	V. Ar___D.
Remarks	

A.S.D.GOVT. DEGREE COLLEGE FOR WOMEN (A)
JAGANNAICKPUR, KAKINADA.

స్త్రీ విద్యాప్రవర్ధతాం

DEPARTMENT OF COMPUTER SCIENCE

NATIONAL SCIENCE DAY CELEBRATIONS

2021-2022

The Department of Computer Science had organized various events on account of National Science Day Celebrations, 2022. The events conducted are Poster Presentation, App Expo and Project Display. Students from II & III B.Sc.(M.P.Cs.) and II & III B.Com. (C.A.) participated in the events. The Poster Presentation and App Expo events were conducted on 25-02-2022 in RB-IV. Project Display was organized in Computer Lab-I on 28-02-2022.

N. N. S. Eswari

Signature of the Lecturers

List of students participated in the Poster Presentation organized in RB-IV from 2 PM to 3.30 PM on 25-02-2022

S.No	Regd.No.	Name of the Student	Class	Topic
1	1932048	M.Pavani	III BSC (MPCS)	Internet of Things
	1932012	CH. Durga Ramya		
2	1932002	K.Vimala Devi	III BSC (MPCS)	Artificial Intelligence
	1932004	Md.Reshma Begum		
3	1932056	T.Asha Jyothi	III BSC (MPCS)	Block Chain
	1932052	P.Vijaya Durga		
4	2032013	K.Katyayani	II BSC (MPCS)	Recent Technologies in Computer Science
5	2032051	G.Gangothri	II BSC (MPCS)	Artificial Intelligence
6	193120	R.Ramya	III B.Com. (CA)	Cloud Computing
	193138	P.Padma Latha		
7	193125	P.Devi Mounika	III B.Com. (CA)	Cluster Computing
	193127	K.Durga Bhavani		
8	193136	J.Narmada	III B.Com. (CA)	Computer Architecture
	193131	K.Anusha		

List of students participated in the App Expo organized in RB-IV from 3.30 PM to 5.00 PM on 25-02-2022

S.No.	Regd.No.	Name of the Student	Class	Name of the App Displayed
1	2032019	MD.Asmin	II BSC (MPCS)	WPS Office
2	2032013	K.Katyayani	II BSC (MPCS)	CAKE
3	2032036	M.Supriya	II BSC (MPCS)	Healthify
4	1932043	J.Pavani Maha Lakshmi	III BSC (MPCS)	Once upon a time
5	1932058	V.Om Rajya Lakshmi	III BSC (MPCS)	India BIX
6	1932005	M.Divya Roopa	III BSC (MPCS)	Your Hour
7	1932014	G.Praneetha	III BSC (MPCS)	Wipro Next Smart Home
8	193124	K.Bharathi	III B.Com. (CA)	YONO SBI
	193128	M.Laya Munnisha		

Consolidated Marks for Poster Presentation

S.No	Regd.No.	Name of the Student	Class	Topic	Total Marks
1	1932048	M.Pavani	III BSC (MPCS)	Internet of Things	25
	1932012	CH. Durga Ramya			
2	1932002	K.Vimala Devi	III BSC (MPCS)	Artificial Intelligence	36
	1932004	Md.Reshma Begum			
3	1932056	T.Asha Jyothi	III BSC (MPCS)	Block Chain	38
	1932052	P.Vijaya Durga			
4	2032013	K.Katyayani	II BSC (MPCS)	Recent Technologies in Computer Science	32
5	2032051	G.Gangothri	II BSC (MPCS)	Artificial Intelligence	24
6	193120	R.Ramya	III B.Com. (CA)	Cloud Computing	22
	193138	P.Padma Latha			
7	193125	P.Devi Mounika	III B.Com. (CA)	Cluster Computing	12
	193127	K.Durga Bhavani			
8	193136	J.Narmada	III B.Com. (CA)	Computer Architecture	13
	193131	K.Anusha			

Winners:

First Prize   : T.Asha Jyothi and P.Vijaya Durga

Second Prize: K.Vimala Devi and Md. Reshma Begum

Third Prize   : K.Katyayani

Consolidated Marks for APP EXPO

S.No.	Regd.No.	Name of the Student	Class	Name of the App Displayed	Total Marks
1	2032019	MD.Asmin	II BSC (MPCS)	WPS Office	40
2	2032013	K.Katyayani	II BSC (MPCS)	CAKE	34.5
3	2032036	M.Supriya	II BSC (MPCS)	Healthify	34
4	1932043	J.Pavani Maha Lakshmi	III BSC (MPCS)	Once upon a time	41
5	1932058	V.Om Rajya Lakshmi	III BSC (MPCS)	India BIX	36
6	1932005	M.Divya Roopa	III BSC (MPCS)	Your Hour	33
7	1932014	G.Praneetha	III BSC (MPCS)	Wipro Next Smart Home	26
8	193124	K.Bharathi	III B.Com. (CA)	YONO SBI	36
	193128	M.Laya Munnisha			

Winners:

First Prize   : J.Pavani Maha Lakshmi

Second Prize: Md.Asmin

Third Prize   : V.Om Rajya Lakshmi, K.Bharathi and M.Laya Munnisha

Brief Report on the Activity

The Department of Computer Science has organized Poster Presentation, App Expo and Project Display events on the occasion of National Science Day Celebrations,2022. Poster Presentation and App Expo events were organized on 25-02-2022 in RB-IV. Project Display was organized in Computer Lab-I on 28-02-2022. Around 40 Students from II & III B.Sc.(M.P.Cs.) and II & III B.Com. (C.A.) participated in the events.

The theme for Poster Presentation is "Innovative Technology in Computer Science " and 12 students from II & III B.Sc.(M.P.Cs.) and II & III B.Com. (C.A.) participated in the event and presented their poster on various Latest technologies in Computer Science like Robotics, Artificial Intelligence, IoT, Block Chain etc., The event was organized in RB-IV on 25-02-2022 from 2.00 PM to 3.30 PM. Mrs. K.Madhavi, Lecturer in Telugu and Mrs. D.Jaya Sree, Lecturer in MicroBiology, acted as Judges for this event and evaluated the students' performance. T.Asha Jyothi and P.Vijaya Durga of III B.Sc.(M.P.Cs.) are declared as First Prize Winners for their Poster on "Block Chain", K.Vimala Devi and Sk.Saajida of III B.Sc.(M.P.Cs.) are declared as Second Prize Winners for their Poster on "Artificial Intelligence", and K.Katyayani of II B.Sc.(M.P.Cs.) is declared as Third Prize Winner for her Poster on "Recent Technologies in Computer Science".

The theme for App Expo is to present any Innovative App and its usage in the field of Health Care/Women Safety/ Education which is not familiar to us and 9 students from II & III B.Sc.(M.P.Cs.) and II & III B.Com. (C.A.) participated in the event and presented various Apps in the field of Health Care, Women Safety, Education etc., The event was organized in RB-IV on 25-02-2022 from 3.30 PM to 5.00 PM. Mrs. K.Eswari, Lecturer in Botany and Dr. G.Anitha, Lecturer in Home Science, acted as Judges for this event and evaluated the students' performance based on the App they displayed and explained. In this event J.Pavani Mahalakshmi of III B.Sc.(M.P.Cs.) displayed an App "Once upon a time" which was developed by herself and has been declared as First Prize Winner for her innovative work, Md.Asmin of II B.Sc.(M.P.Cs.) displayed "WPS Office" App which has many functionalities like pdf to word converter, ppt to pdf converter etc., and she is declared as Second Prize Winner. V. Om Rajya Lakshmi of III B.Sc.(M.P.Cs.) and K.Bharathi, M.Laya Munnisha of III B.Com.(CA.) are combined declared as Third Prize Winners for their Apps.

On 28-02-2022, Mr. Y.Siva Prasad, ISRO Scientist (Retd.) acted as a Chief Guest to the "National Science Day Celebrations". He presented gifts and certificates to the Winners of the events in the Seminar hall where the National Science Day Celebrations were carried out. After that he inaugurated the Science Exhibition in the college which was organized by all the Science Departments as part of National Science Day Celebrations. In that connection, students of II & III B.Sc.(M.P.Cs.) and II & III B.Com. (C.A.) displayed various IoT Projects and explained about them to the visitors. The Project Display was held at computer lab-I and it was organized for the students of the college as well as for the students of A.S.D. Women's Jr. College and students of Aryans EM School. The objective of this activity is dissemination of existing information and to stimulate dialogue between the viewer and the presenter. 8 teams have participated in the event and presented the projects in IoT technologies such as Soil Moisture Indicator,Automatic Street Light, Smoke Detector etc.,

Automatic Street Light

It needs no manual operation for switching ON and OFF. When there is a need of light it automatically switches ON. When darkness rises to a certain level then sensor circuit gets activated and switches ON and when there is other source of light i.e. daytime, the street light gets OFF. The sensitiveness of the street light can also be adjusted. In our project we have used four L.E.D as a symbol of street lamp, but for high power switching one can connect Relay (electromagnetic switch) at the output of pin 3 of I.C 555 that will make easy to turn ON/OFF any electrical appliances that are connected through relay.

This circuit uses a popular timer I.C 555. I.C 555 is connected as comparator with pin-6 connected with positive rail, the output goes high(1) when the trigger pin 2 is at lower then 1/3rd level of the supply voltage. Conversely the output goes low (0) when it is above 1/3rd level. So small change in the voltage of pin-2 is enough to change the level of output (pin-3) from 1 to 0 and 0 to 1. The output has only two states high and low and can not remain in any intermediate stage. It is powered by a 6V battery for portable use. The circuit is economic in power consumption. Pin 4, 6 and 8 is connected to the positive supply and pin 1 is grounded. To detect the presence of an object LDR have been used and a source of light.

LDR is a special type of resistance whose value depends on the brightness of the light which is falling on it. It has resistance of about 1 mega ohm when in total darkness, but a resistance of only about 5k ohms when brightness illuminated. It responds to a large part of

light spectrum. We have made a potential divider circuit with LDR and 100K variable resistance connected in series. As voltage is directly proportional to conductance so more voltage is derived from this divider when LDR is getting light and low voltage in darkness. This divided voltage is given to pin 2 of IC 555. Variable resistance is so adjusted that it crosses potential of 1/3rd in brightness and fall below 1/3rd in darkness. Sensitiveness can be adjusted by this variable resistance. As soon as LDR gets dark the voltage of pin 2 drops 1/3rd of the supply voltage and pin 3 gets high and LED or buzzer which is connected to the output gets activated.

Smoke Detector

A **smoke detector** is a device that senses smoke, typically as an indicator of fire. Commercial security devices issue a signal to a fire alarm control panel as part of a fire alarm system, while household smoke detectors, also known as **smoke alarms**, generally issue a local audible or visual alarm from the detector itself or several detectors if there are multiple smoke detectors interlinked.

Smoke detectors are housed in plastic enclosures, typically shaped like a disk or square about 150 millimetres (6 in) in diameter and 25 millimetres (1 in) thick, but shape and size vary. Smoke can be detected either optically (photoelectric) or by physical process (ionization); detectors may use either, or both, methods. Sensitive alarms can be used to detect, and thus deter, smoking in areas where it is banned. Smoke detectors in large commercial, industrial, and residential buildings are usually powered by a central fire alarm system, which is powered by the building power with a battery backup.

Automatic Dust Bin

The main concept behind the Smart Dustbin using Arduino is Object Detection. A simple methodology is implemented , where the Ultrasonic Sensor is placed on top of the dustbin's lid and when the sensor detects any object like a human hand, it will trigger Arduino to open the lid.

The **smart dustbin** is a carefully designed solution that solves the social issue of waste disposal, the **smart dustbin** identifies the kind of material being thrown inside it and segregates it into bio or non biodegradable. The **dustbin** also comes with an option to provide wifi as an incentive of throwing garbage.

Automatic Water Dispenser

The Concept behind the **Automatic Water Dispenser** is very simple. **HCSR04 Ultrasonic Sensor** is used to check if any object such that the glass is placed before the dispenser. A solenoid valve will be used to control the flow of water, which is when energised the water will flow out and when de-energised the water will be stopped. An Arduino program is written which always checks if any object is placed near the tap, if yes then the solenoid will be turned on and wait till the object is removed, once the object is removed the solenoid will turn off automatically thus closing the supply of water.

Soil Moisture indicator

This is a simple Arduino project for a soil moisture sensor that will light up a LED at a certain moisture level. It uses Arduino Duemilanove microcontroller board. Two wires placed in the soil pot form a variable resistor, whose resistance varies depending on soil moisture. This variable resistor is connected in a voltage divider configuration, and Arduino collects a voltage proportional to resistance between the 2 wires.Insert the 2 probes (wires, pcb) in the dry soil and measure the resistance value and then pour water and measure it again. It used a mid value for the resistor (eg: 50kΩ for 100kΩ in dry soil and 10kΩ in wet).

The other method to find the resistor's value is to try different values or use a potentiometer. Insert the probes into the soil that has the desired moisture when to light up the LED and signal that the plant needs water. Adjust the potentiometer and check the point at which it starts to light. Measure the potentiometer current value and replace it with a fixed resistor.

N. N. S. Eswari

Signature of the Lecturers

Students explaining their Project to Principal and other Staff of the College

Students of A.S.D. Women's Jr. College at Project Display

Students of III B.Sc(M.P.Cs.) & III B.Com.(C.A.) describing the working of the Computer and its parts to the students of Aryans EM School

Students of Aryans EM School at Project Display

Participants of Poster Presentation

Participants of APP EXPO