



# Malla Reddy College of Engineering & Technology

(Autonomous Institution-UGC, Govt of India)

Department of Computational Intelligence



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## Report of the Program

Title of the Activity: Demo Day /Exhibition/Poster Presentation of Business Plans & linkage with Innovation Ambassadors/Experts for Mentorship Support

Date & Time: May 06, 2023

Duration (in minutes): 180 minutes

No of Student Participants: 82

No of Faculty Participants: 6

No of External Participants: 0

Expenditure:

Mode of Delivery: Offline

**Objectives of the Activity:** (100 words) Demo Day, Exhibition, and Poster Presentation of Business Plans are pivotal events that provide the students with a platform to showcase their innovative ideas and secure potential investments by preparing a business plan. These events serve as a launchpad for startups to present their business plans, prototypes, and market strategies to a diverse audience, including investors, industry experts, and the public. The dynamic environment fosters networking, collaboration, and knowledge sharing, enabling startups to gain valuable feedback, forge partnerships, and attract funding. The combination of live demonstrations, engaging exhibitions, and informative poster presentations creates an immersive experience, promoting entrepreneurship, innovation, and economic growth. The session was conducted to promote innovations and a practice of development and analysis of real-life innovative projects among the students. Students presented several posters out of which 3 best posters are considered for 1<sup>st</sup> and 2<sup>nd</sup> and 3<sup>rd</sup> position and given in the report.

**Benefits in terms of learning/Skill/Knowledge obtained** (150 words):

The main points are highlighted below:

- The Department of Computational Intelligence, MRCET organized the session.
- The purpose of the session was to encourage innovation and promote the analysis of real-life problems, along with generating innovative solutions.
- The students participated in the event, presenting their innovative projects and delivering live demonstrations to fellow students, experts from various domains, and delegates.
- This demonstration event has the potential to inspire and cultivate motivation and innovative ideas among newly enrolled students for their future projects.
- To evaluate the projects, two different panels of experts are formed each having two different experts from different fields of research.

- The Panel No. 1 experts are Dr. B. Saritha and Dr. Arundhati Das from the Department of Computer Science and Engineering and from the Department of Computational Intelligence, MRCET, respectively. The Panel No. 2 experts are Dr. P. Harikrishna and Dr. I Nagaraju from the Department of Computational Intelligence and from the Department of Emerging Technologies, MRCET, respectively
- The marks given by both the panels for each and every project are averaged.
- **Below find the best posters considered for first position, second position and third position:**
- **First position Team members: HARSHIT RAJ TIWARY (20N31A6619), DASARI DHANUSH (20N31A6610), K VAMSI SAI BHARAT REDDY (20N31A6622)**



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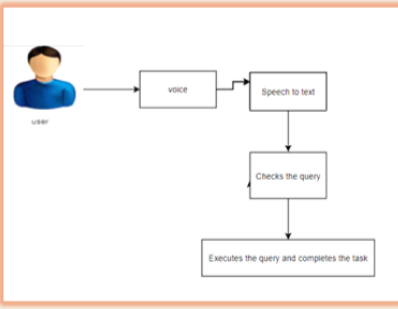
DEPARTMENT OF  
COMPUTATIONAL  
INTELLIGENCE





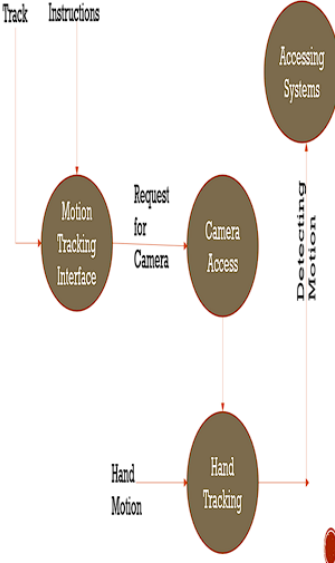
THE HANDY BOT

<p style="text-align: center; font-weight: bold; background-color: #f4a460; color: white; padding: 2px;">PROBLEM</p> <p style="text-align: center; font-weight: bold;">A PERSONAL ASSISTANT BIPEDAL ROBOT</p>	<p style="text-align: center; font-weight: bold; background-color: #f4a460; color: white; padding: 2px;">TECHNOLOGIES USED</p> <ul style="list-style-type: none"> <li>• Otto Robot 3D printed parts</li> <li>• Arduino Uno</li> <li>• Raspberry Pi Zero W H</li> <li>• Servo Motors</li> <li>• Ultrasonic Sensor's</li> <li>• Jumper wires</li> <li>• Motor Driver Board</li> <li>• Python 3</li> <li>• Arduino Programming</li> <li>• Otto Blockly Software</li> <li>• Machine Learning</li> </ul>	<p style="text-align: center; font-weight: bold; background-color: #f4a460; color: white; padding: 2px;">FUTURE GOALS</p> <p style="text-align: center; font-weight: bold;">TO MAKE THE ROBOT TO INTERACT WITH HUMANS EFFECTIVELY</p>	
<p style="text-align: center; font-weight: bold; background-color: #f4a460; color: white; padding: 2px;">PROJECT GOAL</p> <p>The purpose of the project is to make minor works of humans easier and have a toy-like pet. It cheers us up with the music, and it gives us the weather report, a mini search engine.</p> <ul style="list-style-type: none"> <li>• A Digital bot is a software program that can execute commands, reply to messages, or perform routine tasks, such as online searches, either automatically or with minimal human intervention.</li> <li>• The HANDY BOT features an HD camera with face recognition that can remember you and your family members. It can hear a microphone array that can capture sounds. If you need him, just say "HEY HANDY!". It has a high-quality speaker that can play your favorite playlist and communicate with you with adorable simulated sounds.</li> <li>• It can play songs with dancing locomotion's</li> <li>• It can be helpful to us as a small size search engine.</li> <li>• It has an add on feature that Bot can move by avoiding obstacles.</li> </ul>	<p style="text-align: center; font-weight: bold; background-color: #f4a460; color: white; padding: 2px;">SYSTEM ARCHITECTURE</p> 	<p style="text-align: center; font-weight: bold; background-color: #f4a460; color: white; padding: 2px;">REFERENCES</p> <ul style="list-style-type: none"> <li>• <a href="https://www.google.com/search?q=otto+robot&amp;oq=otto+robot+&amp;aqs=chrome.69i59j5j69i60j3.3314j0j4&amp;sourceid=chrome&amp;ie=UTF-8">https://www.google.com/search?q=otto+robot&amp;oq=otto+robot+&amp;aqs=chrome.69i59j5j69i60j3.3314j0j4&amp;sourceid=chrome&amp;ie=UTF-8</a></li> <li>• <a href="https://www.python.org/">https://www.python.org/</a></li> <li>• <a href="https://create.arduino.cc/projecthub/Vishalsoniindia/otto-robot-arduino-robot-simple-arduino-robot-428bf-architectures">https://create.arduino.cc/projecthub/Vishalsoniindia/otto-robot-arduino-robot-simple-arduino-robot-428bf-architectures</a></li> <li>• <a href="https://pypi.org/project/opencv-python/">https://pypi.org/project/opencv-python/</a></li> <li>• <a href="https://pypi.org/project/SpeechRecognition/">https://pypi.org/project/SpeechRecognition/</a></li> </ul>	
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>walk</p> </div> <div style="text-align: center;">  <p>dance</p> </div> <div style="text-align: center;">  <p>detect &amp; avoid obstacles</p> </div> </div>			<p style="text-align: center; font-weight: bold; background-color: #f4a460; color: white; padding: 2px;">Conclusions</p> <p>As the internet advances rapidly in modern society, there are many automatic robots are coming into the ground. In this paper, we proposed a Bipedal robot using basic programming languages. After we briefly observed the related works, the proposed model was explained in detail. The proposed model can be used to make the minor Human performing tasks in quite effortless way and fast and do many operations like responding to the commands, interacting with user, face recognition, weather forecasting and playing music's with suitable locomotion styles.</p>

- **Second position Team members: KIRADAM SAICHARAN REDDY (20N31A6627), RAVULAPALLY YASHWANTH (20N31A6649), JINNA GEETHIKA (20N31A6621)**

 <p><b>MALLA REDDY COLLEGE OF ENGINEERING &amp; TECHNOLOGY</b> (AUTONOMOUS INSTITUTION - UGC, GOVT. OF INDIA) <small>Affiliated to JNTUH, Approved by AICTE, NBA-Tier 1 &amp; NAAC with A-GRADE   ISO 9001:2015</small></p>	<p><b>DEPARTMENT OF COMPUTATIONAL INTELLIGENCE</b></p>	<p><b>PERSONAL VOICE ASSISTANT USING PYTHON</b> (KIRADAM SAICHARAN REDDY, JINNA GEETHIKA, RAVULAPALLY YASHWANTH)</p>	 <p><b>INSTITUTION'S INNOVATION COUNCIL</b> <small>(Ministry of HRD Initiative)</small></p>
<p><b>PROBLEM</b></p> <p>PERSONAL VOICE ASSISTANT USING PYTHON</p>	<p><b>SYSTEM ARCHITECTURE</b></p>  <pre> graph TD     User((User)) --&gt; Voice[voice]     Voice --&gt; STT[Speech to text]     STT --&gt; Check[Checks the query]     Check --&gt; Execute[Executes the query and completes the task]         </pre>	<p><b>FUTURE GOALS</b></p> <ol style="list-style-type: none"> <li>1. Multilingual Support</li> <li>2. User Friendly Application</li> </ol>	
<p><b>PROJECT GOAL</b></p> <p>The user can opens an applications and perform their actions, WhatsApp automation, open internal applications and externally installed applications not only opening of application even we can close an application using voice command close,terminate,end.</p>		<p><b>REFERENCE</b></p> <ol style="list-style-type: none"> <li>1. Hoy, Matthew B. (2018). "Alexa, Siri, Cortana, and More: An Introduction to Voice Assistants". <i>Medical Reference Services Quarterly</i>. 37 (1): 81–88. doi:10.1080/02763869.2018.1404391. PMID 29327988. S2CID 30809087</li> </ol>	
<p><b>TECHNOLOGIES USED</b></p> <p>Python, Speech Recognition, Python Date Time, Webbrowser, SMTP Library, Pywhatkit, PYTTSX3</p>			

- **Third position Team members: ROHAN ADITHYA GARLAPATI(20N31A6617), MANTRI ARUN KUMAR(20N31A6634)**

 <p>MALLA REDDY COLLEGE OF ENGINEERING &amp; TECHNOLOGY</p>	<p>Department of computational Intelligence</p>	<p><b>Virtual Drag And Drop</b> (Rohan Adithya Garlapati ,Mantri Arun Kumar )</p>	 <p>INSTITUTION'S INNOVATION COUNCIL (Member of AICTE Institute)</p>
<p><b>PROBLEM</b> VIRTUAL DRAG AND DROP</p>	<p><b>TECHNOLOGIES USED</b> Python,Libraries- Numpy,open cv</p>	<p><b>FUTURE GOALS</b> Integrate this software inside computers.</p>	<p><b>REFERENCES</b></p> <ol style="list-style-type: none"> <li>1) International Journal of Computer Trends and Technology (IJCTT) – volume 9 number 1– Mar 2014 ISSN: 2231-2803 <a href="http://www.internationaljournalsrg.org">www.internationaljournalsrg.org</a> Page 15 Mouse Control using a Web Camera based on Colour Detection.</li> <li>2) K N. Shah, K R. Rathod and S. J. Agravat, "A survey on Human Computer Interaction Mechanism Using Finger Tracking" International Journal of Computer Trends and Technology, 7(3), 2014, 174-177 [3] Tutorialspoint.com, (n.d.). SDLC - Agile Model. [online] Available at <a href="http://www.tutorialspoint.com/sdlc/sdlc_agile_model.html">http://www.tutorialspoint.com/sdlc/sdlc_agile_model.html</a>,</li> <li>3) Python GUI Programming With Tkinter <a href="https://realpython.com/python-gui-tkinter/">https://realpython.com/python-gui-tkinter/</a></li> <li>4) Python numpy ,<a href="https://numpy.org/">https://numpy.org/</a></li> <li>5) The Python Standard Library <a href="https://python.readthedocs.io/en/latest/library/index.html">https://python.readthedocs.io/en/latest/library/index.html</a></li> <li>6) TheMATLABwebsite.[Online].Available: <a href="http://www.mathworks.com/matlabcentral/fileexchange/28757-tracking-red-color-objects-using-matlab">http://www.mathworks.com/matlabcentral/fileexchange/28757-tracking-red-color-objects-using-matlab</a></li> <li>7) Pycharm <a href="https://www.jetbrains.com/pycharm">https://www.jetbrains.com/pycharm</a> .</li> </ol>
<p><b>PROJECT GOAL</b> This will allow the user to virtually click and drag the pictures and items on the screen to other parts of the screen without use of mouse. The system will detect the hand landmarks on the palm, using those pin points and distance between the fingertips the system will be able to perform the operations.</p>	<p><b>SYSTEM ARCHITECTURE</b></p>  <pre> graph TD     TI[Track Instructions] --&gt; MTI[Motion Tracking Interface]     MTI -- "Request for Camera" --&gt; CA[Camera Access]     CA -- "Detecting Motion" --&gt; AS[Accessing Systems]     HM[Hand Motion] --&gt; HT[Hand Tracking]     HT -- "Detecting Motion" --&gt; AS   </pre>		

Any other points about the program:

Remarks (if any):

- The event serves as a source of motivation for students to enhance their projects and incorporate additional features.
- For both first-year and other students, the event instills a sense of motivation for their upcoming projects.

Web Links:

- Instagram—<https://www.instagram.com/p/Crzzzt1pAn3/?igshid=YzcyNDA0Yzg3NA==>

*Arundhati Das*  
Signature of Co-Ordinator

*Sujatha*  
Signature of HoD

*P.H.V.*  
Signature of IIC President

**Enclosures: (in word and jpeg format)**

The event started at 11:00 am in lab 4005, ground floor of CSE 4 building on May 06, 2023. Dr. S. Srinivasa Rao, the Principal, Dr. T Venugopal, the Dean, Dr. P.H.V. Sessa Talpa Sai, Director (R & D), and Dr. D. Sujatha, HoD CI of MRCET CAMPUS took the charge and addressed the gathering about the Demo Day and Poster presentations of Innovations/Prototypes.



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DEPARTMENT OF COMPUTATIONAL INTELLIGENCE

*"Demo Day / Exhibition / Poster Presentation  
of Business Plans & linkage with  
Innovation Ambassadors / Experts for  
Mentorship Support"*



**Date : May 06, 2023 @ 11 AM**  
**Venue: Lab 4005, Ground Floor, Building CSE 4**

**Dr. V. S. K. REDDY**  
DIRECTOR

**Dr. S. SRINIVASA RAO**  
PRINCIPAL


**Dr. T. VENU GOPAL**  
DEAN

**Dr. P. H. V. SESA TALPA SAI**  
DIRECTOR (R & D)

**Dr. D. SUJATHA**  
HOD CI

**Dr. ARUNDHATI DAS**  
IIC Co-Ordinator CI

*"Demo Day / Exhibition / Poster Presentation  
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**Date : May 06, 2023 @ 11 AM**  
**Venue: Lab 4005, Ground Floor, Building CSE 4**

Dr. V. S. K. REDDY DIRECTOR	Dr. S. SRINIVASA RAO PRINCIPAL	Dr. T. VENU GOPAL DEAN
Dr. P. H. V. SESA TALPA SAI DIRECTOR (R & D)	Dr. D. SUJATHA HOD CI	Dr. ARUNDHATI DAS HC Co-Ordinator CI



Latitude	Date	Sat, 05 06 2023
0.0°	Local	11:55:34 AM
Longitude	GMT	06:25:34 AM
0.0°	Altitude	0 meters
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Participant Details:

Department of Computational Intelligence, MRCET					
<b>Demo Day /Exhibition/Poster Presentation of Business Plans &amp; linkage with Innovation Ambassadors/Experts for Mentorship Support</b>					
Date: 06/05/ 2023					
Sno	Roll no	Year	Sem	Branch	Project/prototype name
1	22N35A6901	II	I	CSE-IOT	1. SMART PARKING SYSTEM
2	22N35A6903	II	I	CSE-IOT	
3	22N35A6904	II	I	CSE-IOT	
4	22N35A6905	II	I	CSE-IOT	
5	20N31A6940	III	II	CSE-IOT	2. SMART CAR BARRIER
6	20N31A6956	III	II	CSE-IOT	
7	20N31A6905	III	II	CSE-IOT	
8	20N31A6955	III	II	CSE-IOT	
9	20N31A05K5	III	II	CSE	3. MENTAL HEALTH TRACKER
10	20N31A05L4	III	II	CSE	4. EMPLOYEE LEAVE MANAGEMENT SYSTEM
11	20N31A05N7	III	II	CSE	5. DIGI NEWS
12	20N31A6908	III	II	CSE-IOT	6. LED DIGITAL DISPLAY BOARD
13	20N31A6909	III	II	CSE-IOT	
14	20N31A6928	III	II	CSE-IOT	
15	20N31A6934	III	II	CSE-IOT	
16	20N31A6944	III	II	CSE-IOT	
17	20N31A6953	III	II	CSE-IOT	7. Tourist guide application
18	20N31A0514	III	II	CSE	
19	20N31A6912	III	II	CSE-IOT	8. INTRUDER ALTER SYSTEM
20	20N31A6916	III	II	CSE-IOT	
21	20N31A6957	III	II	CSE-IOT	
22	20n31a6954	III	II	CSE-IOT	
23	20N31A6906	III	II	CSE-IOT	
24	20N31A6910	III	II	CSE-IOT	9. Leave management system
25	20N31A6912	III	II	CSE-IOT	
26	21N35A6706	III	II	CSE-DS	
27	20N31A6736	III	II	CSE-DS	10. Anti sleep alarm
28	20N31A6755	III	II	CSE-DS	
29	20N31A6929	III	II	CSE-IOT	
30	20N31A6918	III	II	CSE-IOT	



31	20n31a6919	III	II	CSE-IOT	11. VOICE CONTROL CAR
32	20N31A6923	III	II	CSE-IOT	
33	20N31A6960	III	II	CSE-IOT	
34	20N31A6939	III	II	CSE-IOT	
35	20N31A6907	III	II	CSE-IOT	
36	20N31A6924	III	II	CSE-IOT	
37	20N31A6946	III	II	CSE-IOT	
38	20N31A6941	III	II	CSE-IOT	12. EASYDOCS
39	20N31A0573	III	II	CSE	
40	20N31A0599	III	II	CSE	13. Face Recognition attendance
41	20N31A05b4	III	II	CSE	
42	20N31A0582	III	II	CSE	14. Language Translator
43	20N31A0570	III	II	CSE	
44	20N31A6933	III	II	CSE-IOT	15. SMART DUSTBIN
45	20N31A6927	III	II	CSE-IOT	
46	20N31A6959	III	II	CSE-IOT	
47	20N31A6952	III	II	CSE-IOT	16. SMART HOME AUTOMATION
48	20N31A6949	III	II	CSE-IOT	
49	20N31A6958	III	II	CSE-IOT	
50	20N31A6955	III	II	CSE-IOT	
51	20N31A6952	III	II	CSE-IOT	17. ADVANCED INCLINOMETER
52	20N31A6958/	III	II	CSE-IOT	
53	20N31A6955	III	II	CSE-IOT	
54	20N31A6949	III	II	CSE-IOT	
55	20N31A6954	III	II	CSE-IOT	
56	20N31A6952	III	II	CSE-IOT	18. SMART TIMETABLE
57	20N31A6955	III	II	CSE-IOT	
58	20N31A6958	III	II	CSE-IOT	
59	20N31A6954	III	II	CSE-IOT	
60	20N31A6917	III	II	CSE-IOT	19. SMART BLIND STICK
61	20N31A6949	III	II	CSE-IOT	
62	20N31A6903	III	II	CSE-IOT	
63	20N31A6948	III	II	CSE-IOT	
64	20N31A6954	III	II	CSE-IOT	20. VIRTUAL DRAG AND DROP
65	20N31A6617	III	II	CSE-AIML	
66	20N31A6634	III	II	CSE-AIML	
67	20N31A6610	III	II	CSE-AIML	21. BI-PEDAL ROBOT
68	20N31A6622	III	II	CSE-AIML	
69	20N31A6619	III	II	CSE-AIML	
70	20N31A6621	III	II	CSE-AIML	22. PERSONAL VOICE ASSISTANT
71	20N31A6627	III	II	CSE-AIML	
72	20N31A6649	III	II	CSE-AIML	
73	19N31A1248	IV	II	IT	23. DEVELOPMENT OF AI-BASED PICTURE TRANSLATION APPLICATION
74	19N31A1206	IV	II	IT	
75	19N31A1241	IV	II	IT	24. FERTILIZER RECOMMENDATION AND CROP

76	19N31A1236	IV	II	IT	YIELD PREDICTION SYSTEM (SMART HARVEST APP)
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