DroneTech Ignition webinar followed by Workshop

Date: 12-01-2024 to 14-01-2024
Time: 10:30 AM

Speakers:

Dr K Raja Narender Reddy, Head Centre for i2RE

K.Kishore, co-coordinator of AICTE lab

Mr Prem Sai, Aerospace Engineer

Mr. Goutham, pilot and co-leader

Mr S Arun Reddy, fabrication expert

Mr. Srinivas Munagala, aerospace design

Mr. KGS Manikanta, aerospace design

On the occasion of National Youth Day on 12th January 2024, The DroneTech Ignition Webinar is conducted in the IoT lab, C-i²RE by the Innovation and Research Club in collaboration with E-Cell under Student Alliance for Innovation and Leadership (SAIL), C-i²RE. The event is hosted by B.Eesha and Pragnya, members of SAIL. Organised as an initiative to propel the skills of the student community in the rapidly evolving landscape of drone technology, a significant number of students were part of this event. The event began with hosts introducing themselves and welcoming the attendees. Student Alliance for Innovation and Leadership, SAIL is introduced, providing the audience and the guests a brief overview of the student body and the clubs organising the event. An invocation song is then sung by the club member to honour the almighty with virtual jyotiPrajwalna. Mr Kishore Kumar, faculty coordinator for E-Cell encouraged students to utilize the upcoming sessions to gain knowledge on drone technology. Dr K Raja Narender Reddy explained the ideals of the Centre for innovation, incubation, Research and Entrepreneurship(C-i²RE) and SAIL, and thanked the body for their efforts in organising an event in the cutting-edge drone technology. He went on to highlight the critical role drones today play in various fields and the incentives by central government to this sector. He then reminisced about Swami Vivekananda's hopes for the youth of the nation and urged students to realise them.

The host introduced the guests to the esteemed guest team of aerospace engineers from the drone-based startup Hexagon Aerospace, who presented to enlighten the students with their expert knowledge and guidance. The team includes Mr Goutham, pilot and co-leader; Mr S Arun Reddy, fabrication expert; Mr Srinivas Munagala &Mr KGS Manikanta from the design team. This team of ambitious drone experts have dedicated three years to pioneering drone technology solutions, focusing on applications in Agriculture, Military, Rapid Response, and Geo-mapping. Their commitment centres on developing sustainable, affordable, and user-friendly drone solutions, aiming to simplify learning, operation, and maintenance across these sectors. The host also introduced Mr. Parvatha Prem Sai, the guest speaker for the DroneTech Ignition Webinar who is an industry expert from Hexagon Aerospace and a highly accomplished aerospace engineer in areas of UAVs (unmanned aerial vehicles), rocket propulsion, and drone technology.

Mr Parvatha Prem then took over the session with an interactive webinar. He began by covering the basics of Unmanned Aerial Vehicles(UAVs) and aircraft, the sectors which use drones and the different types of drones that are available today. He commented on the popularity of quadcopter and detailed the reasons behind its widespread use. He then explained the drone-making process and the basic hardware and software components needed to build one and discussed the intricacies of a proper frame, motors and a microcontroller for a successful drone. He also mentioned the importance of drones in agriculture given booming startups and high entrepreneurship scope in that sector with insights from his projects. From construction and surveying, and rescue operations to films and logistics, he emphasized the high potential of drones in the future. He then ended the webinar with valuable insights on building a startup out of this emerging technology. An interactive session followed where students raised queries regarding the usage of components and the limitations of drones which are expertly answered by the speaker.

After a brief lunch break, The DroneTech Ignition Workshop followed with hosts reintroducing the guest team to the audience. The workshop offered a comprehensive exploration of drones, covering essential fundamentals, diverse applications, and the intricate process of drone fabrication, including a detailed examination of its components. It was a rich learning experience for the students that began with a solid foundation in drone basics, ensuring a clear understanding of the technology's underlying principles and aspects. The workshop then moved on to an exploration of the many applications of drones across various industries, showcasing their versatility and potential impact on fields such as agriculture, surveillance, and environmental monitoring. The hands-on experience focused on the fabrication of drones, providing participants with practical insights into configuring the various components necessary for a fully functional drone. This session not only broadened the participants' knowledge base but also equipped them with the skills required to actively engage in drone development and application. Overall, the workshop successfully merged theoretical knowledge with practical expertise, fostering a deeper understanding of the world of drones.

The 2nd and 3rd days of the DroneTech Ignition Workshop, conducted by Innovation and Research Club in collaboration with was held across Idea Pitching Lab, Digital Manufacturing Lab and PCB Lab at C-i²RE. Dedicated to the fabrication of drones for the Military, Agriculture, Geo Mapping and Survey, and Rapid Response sectors, participants commenced the day with a thorough examination of essential drone components.

Amid an atmosphere of excitement, participants received DIY drone kits, unboxing them with anticipation, and meticulously reviewed manuals in preparation for the upcoming fabrication session. The exploration of major drone applications was comprehensive, spanning medical, agriculture, defence, surveillance, videography, rescue, transportation, and logistics. Delving into

military drone usage, insights unfolded regarding surveillance and attacks, seamlessly transitioning to the logistics applications of drones. Brief yet insightful discussions highlighted the roles of civil drones in agriculture, photography, and data collection. Transitioning into a more in-depth exploration, the session delved into channels, specifications of components, combat drones, and nuances differentiating various drone types. A brief yet enlightening explanation followed on the primary sensors used in drone stabilization, providing participants with a deeper understanding.

In this session, participants actively engaged in fabricating DIY drones across the designated sectors. Teamwork flourished as participants enthusiastically crafted the structural development of mini drones and joysticks, guided by experienced mentors. Theoretical insights on flight controllers and joystick controls were shared, ensuring participants were well-equipped with the prerequisites to navigate their drones effectively. The workshop then moved to the expansive campus ground, where participants, under the guidance of mentors, piloted the drones they had meticulously built. A palpable sense of enthusiasm filled the air as participants witnessed their creations take flight. The climax of the workshop unfolded in a playful competition, with participants engaging in a spirited drone race, fostering a joyful and competitive atmosphere.

With this dynamic conclusion, the three-day DroneTech Workshop across its diverse venues came to a close. Participants departed with not only theoretical insights but also hands-on practical knowledge, making the workshop an invaluable resource for all involved in the exciting world of drone technology.

List of participants :-

Number of participants :- 92

A. Pragnya	B22cs140	B.Tech	CSE	B.Tech IV
Jayaprakash	B22ME003	B.Tech	ME	B.Tech IV
BITLA VARUN	B22ME123L	B.Tech	ME	B.Tech VI
Y. V. V. Sai Sri Sumanth	B22ME121L	B.Tech	ME	B.Tech VI
Anjali Gandla	B21EC114	B.Tech	ECE	B.Tech VI
Akshitha	B22EC178	B.Tech	ECE	B.Tech IV
Abhinay Deshini	B22EC190	B.Tech	ECE	B.Tech IV
Koushika Mamidi	B21EC099	B.Tech	ECE	B.Tech VI
Ananya Lingampally	B22EC150	B.Tech	ECE	B.Tech IV
Saili.Amulya	B22EC173	B.Tech	ECE	B.Tech IV
B.Nikitha	B23EC208L	B.Tech	ECE	B.Tech IV
Mohammad zebha Tharunam	B23ec202l	B.Tech	ECE	B.Tech IV
S.LaxmiSanjana	B21EC102	B.Tech	ECE	B.Tech VI
Kandula Sri Varshitha	B20EC115	B.Tech	ECE	B.Tech VIII
V.srinidhi	B23CN142L	B.Tech	CSN	B.Tech IV
Prem Dinakar	B22EC182	B.Tech	ECE	B.Tech IV
J.Maheshwari	B23ECE209L	B.Tech	ECE	B.Tech IV
Bompally Janani	B21CS061	B.Tech	CSE	B.Tech VI
Sriram Mekala.	B22EE040	B.Tech	EEE	B.Tech IV
Banothu nithin	B22EC166	B.Tech	ECE	B.Tech IV
Anumandla Ruthvik Reddy	B23EE032	B.Tech	EEE	B.Tech I

Mohammed Adnan	B21IT023	B.Tech	IT	B.Tech VI
N.Ganesh	B22ec154	B.Tech	ECE	B.Tech IV
Nagesh	B22EC171	B.Tech	ECE	B.Tech IV
S. Nithin Kumar	B21ME137L	B.Tech	ME	B.Tech VIII
K.Rakesh	B22EC141	B.Tech	ECE	B.Tech IV
Balaji	B23EE080L	B.Tech	EEE	B.Tech IV
Nithin Kumar	B21ME137L	B.Tech	ME	B.Tech VIII
Nuka Abhinay	B21IT017	B.Tech	IT	B.Tech VI
B.Akshaya	B23ec207l	B.Tech	ECE	B.Tech IV
SAINISHITHA	B21EC009	B.Tech	ECE	B.Tech VI
M Suhas Chandra	B22ME131L	B.Tech	ME	B.Tech VI
K.subhash	B22ME124L	B.Tech	ME	B.Tech VI
PRANAY	B22ME128L	B.Tech	ME	B.Tech VI
Ridhima Sriramoju	B21IT008	B.Tech	IT	B.Tech VI
Kasturi Harshavardhan	B21IT007	B.Tech	IT	B.Tech VI
Navaneeth	B23EC210L	B.Tech	ECE	B.Tech IV
gunda siddhartha	B21EC090	B.Tech	ECE	B.Tech VI
Shruthi	B21CE038	B.Tech	CE	B.Tech VI
Mukesh	B23EE023	B.Tech	EEE	B.Tech I
B.Sriharshitha	B21CS032	B.Tech	CSE	B.Tech VI
Harika Kalakonda	B21EC106	B.Tech	ECE	B.Tech VI
G. Sai Sumanth	B22CN014	B.Tech	CSN	B.Tech IV
Samanvitha Bonugani	B23ECO77	B.Tech	ECE	B.Tech I
Shravya Racha	B22IN118	B.Tech	CSO	B.Tech IV
Gundapu Sanjana	B23EC095	B.Tech	ECE	B.Tech I
Sai Krishna Vaibhav Martha	B22IN011	B.Tech	CSO	B.Tech IV
Gundapu Sanjana	B23EC095	B.Tech	ECE	B.Tech I
P BHARATH KUMAR REDDY	B21IT071	B.Tech	IT	B.Tech VI
ABHINAY DESHINI	B22ec190	B.Tech	ECE	B.Tech IV
J.Harish	B23CS199L	B.Tech	CSE	B.Tech IV
Kalva Vishnu Vardhan	B20ME119	B.Tech	ME	B.Tech VIII
Harini Kurimilla	B23AI060	B.Tech	CSM	B.Tech I
A.Akhila	B22EC143	B.Tech	ECE	B.Tech IV
Kodityala Shiva Kumar	B22IN080	B.Tech	CSO	B.Tech IV
M.Sravani	B22EC191	B.Tech	ECE	B.Tech IV
Pranay	B22ME128L	B.Tech	ME	B.Tech VI
Junuri Neha	B21EC098	B.Tech	ECE	B.Tech VI
M Suhas Chandra	B22ME131L	B.Tech	ME	B.Tech VI
Chaparthy Siddhartha	B22ME126L	B.Tech	ME	B.Tech VI
Dornalashashipreetham	B22ME125L	B.Tech	ME	B.Tech VI
P.vikas	B22ME122L	B.Tech	ME	B.Tech VI
G. Rishitha	B23EE059	B.Tech	EEE	B.Tech I
Varun Boddula	B21EE141L	B.Tech	EEE	B.Tech VIII

SAI VIKAS THOUDABOINA	B21EE142L	B.Tech	EEE	B.Tech VIII
Sai Santhosh	B21EE131L	B.Tech	EEE	B.Tech IV
Preetham Malyala	B21EE148I	B.Tech	EEE	B.Tech VIII
B.Akshitha	B23EE019	B.Tech	EEE	B.Tech I
Ganta Siddharth	B21CS135	B.Tech	CSE	B.Tech VI
K.Laxmipriya	B21IT129	B.Tech	IT	B.Tech VI
Akshitha	B21It124	B.Tech	IT	B.Tech VI
Tajuddin	B21CS087	B.Tech	CSE	B.Tech VI
Eesha Belladi	B22IN078	B.Tech	CSO	B.Tech IV
Nagasiri	B23CS123	B.Tech	CSE	B.Tech I
Mokshith Sankathala	B21EC084	B.Tech	ECE	B.Tech VI
Dhanush Gampa	B21EC097	B.Tech	ECE	B.Tech VI
Akash varmagandi	B22EC203L	B.Tech	ECE	B.Tech VI
Syed wajid pasha	B22IT134L	B.Tech	IT	B.Tech VI
Challa Sindhu	B21CS069	B.Tech	CSE	B.Tech VI
Thallapally Swapna	B22CS183	B.Tech	CSE	B.Tech IV
Challa Vijay	B23CS192L	B.Tech	CSE	B.Tech IV
A. Srinidhi	B21ME051	B.Tech	ME	B.Tech VI
MOHAMMED ABSAAR YAAMEEN	B22EE002	B.Tech	EEE	B.Tech IV
Manideep.D	B22IN037	B.Tech	CSO	B.Tech IV
Shaik Thohid	B21it118	B.Tech	IT	B.Tech VI
Ruttala Deepak Kumar	B21ec067	B.Tech	ECE	B.Tech VI
Kotrasaikumar	B22ec016	B.Tech	ECE	B.Tech IV
MOHAMMED ABSAAR YAAMEEN	B22EE002	B.Tech	EEE	B.Tech IV
B.Thanvika	B22EE001	B.Tech	EEE	B.Tech IV
UPPALA SUNNY SOUMITH	B22ai074	B.Tech	CSM	B.Tech IV
S. Akshitha	b23ec203L	b.tech	ece	b.tech
P.REVANTH	B22IN066	B.TECH	CSO	B.TECH IV

Event pictures:-

Koukonda, Telangana, India
3G3Q+58G, Koukonda, Telangana 506009, India
Lat 18.052965°
Long 79.538441°
12/01/24 10:33 AM GMT +05:30

Koukonda, Telangana, India
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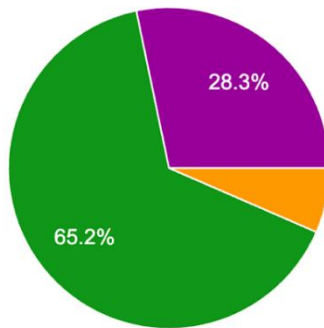Lat 18.052965°
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FEEDBACK:-

Content Relevance
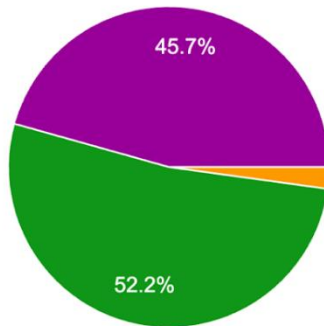46 responses

- 1 - Poor
- 2 - Below Average
- 3 - Average
- 4 - Good
- 5 - Excellent

28.3%
65.2%

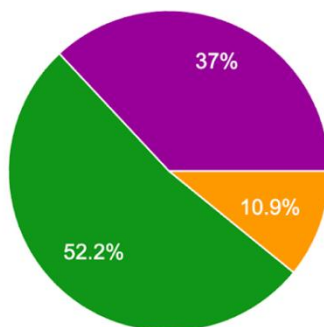### Engagement and Interaction
46 responses

- 1 - Poor
- 2 - Below Average
- 3 - Average
- 4 - Good
- 5 - Excellent

45.7%
52.2%

Overall Program Satisfaction
46 responses

- 1 - Poor
- 2 - Below Average
- 3 - Average
- 4 - Good
- 5 - Excellent

37%
10.9%
52.2%