ELECTRO VISION' 18

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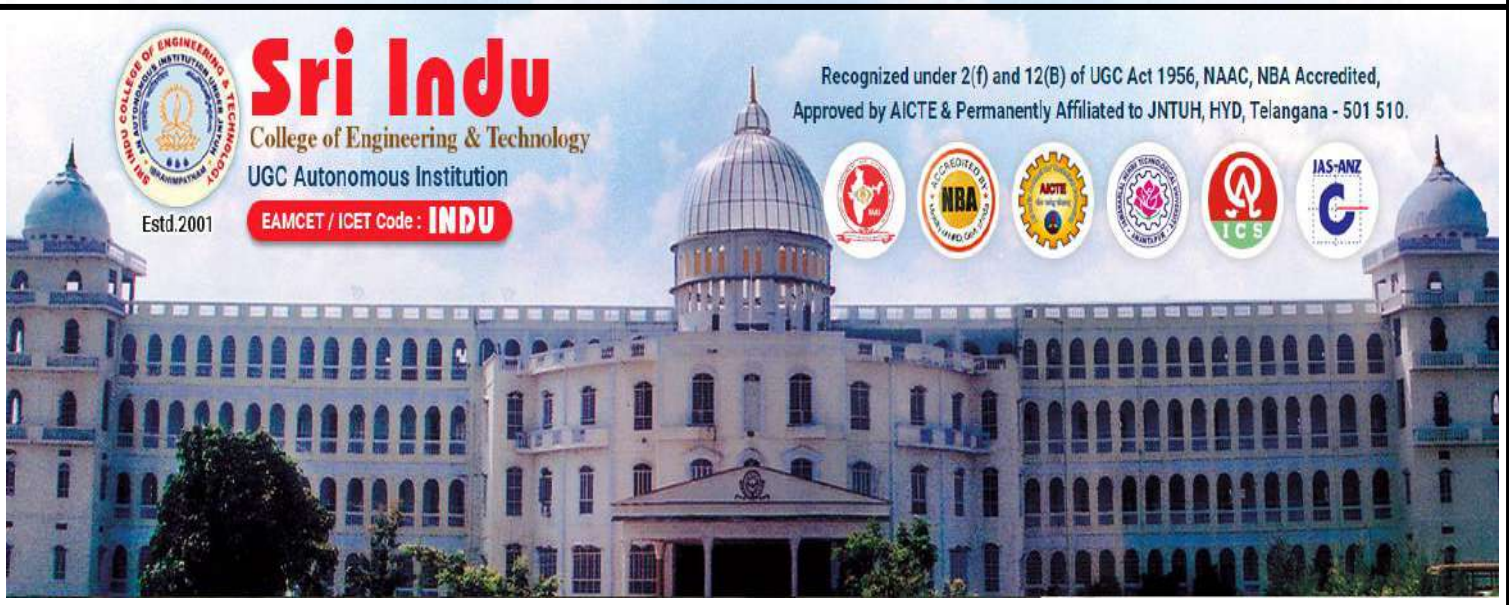


Department of Electronics and Communication Engineering

SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

HYDERABAD

VISION

To be a premier Institution in Engineering & Technology and Management with competency, values and social consciousness.

MISSION

IM1: Provide high quality academic programs, training activities and research facilities.

IM2: Promote continuous Industry-Institute interaction for employability, entrepreneurship, leadership and research aptitude among stakeholders.

IM3: Contribute to the economical and technological development of the region, state and nation.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

DEPARTMENT VISION

To be a centre of excellence in Electronics and Communication Engineering Education and to produce professionals for ever-growing needs of society.

DEPARTMENT MISSION

DM1: To promote and facilitate student- centric learning.

DM2: To involve in activities that enable overall development of stakeholders.

DM3: To provide holistic environment with state-of-art facilities for students to develop solutions for various social needs.

DM4: Organize trainings in embedded systems with Industry interaction

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO 1: Higher Degrees & Professional Employment:
Graduates with ability to pursue career in core industries or higher studies in reputed institution.

PEO 2: Domain Knowledge:
Graduates with ability to apply professional knowledge/skills to design and develop product or process.

PEO 3: Engineering Career:
Graduates with excellence in Electronics and Communication Engineering along with effective inter-personnel skills.

PEO 4: Lifelong Learning:
Graduates equipped with skills in recent technologies and be receptive to attain professional competence through life-long learning.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO 1: Basic Electronic and communications knowledge:
Apply basic knowledge related to electronic circuits, VLSI, communication systems, signal processing and embedded systems to solve engineering/societal problems.

PSO 2: Design Methods:
Design, verify and authenticate electronic functional elements for different applications, with skills to interpret and communicate results.

PSO 3: Experimentation & Communications:
Engineering and management concepts are used to analyze specifications and prototype electronic experiments/projects either independently or in teams.

POS	PROGRAM OUTCOME STATEMENTS
PO1	**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	**Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	**Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	**Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	**The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	**Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	**Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

STUDENT ACHIEVEMENT

PLACEMENT ACTIVITIES

S. No.	Student Name	Student ID/No.	Employer	name Employer Website	Date of offer / Appointment
11	S. VEDA CHANDANA	14D41A04J4	SITEL	https://www.sitel.com/	07-05-2018
14	G. PRIYANKA	14D41A0466	QSPIDERS JSPIDERS	https://www.qspidersjspiders.com/	20-03-2018
15	G. ARPIKA	14D41A0471	QSPIDERS JSPIDERS	https://www.qspidersjspiders.com/	20-03-2018
20	B. NEEHARIKA	14D41A0427	FACE	https://www.face.com/	31-03-2018
21	P SAI MANISH	14D41A04G5	EIDIKO	https://www.eidiko.com/	01-06-2018
22	P NIKHIL REDDY	14D41A04G6	EIDIKO	https://www.eidiko.com/	01-06-2018
23	V SAI RAM REDDY	14D41A04L9	GENPACT	https://www.genpact.com/	09-02-2018
24	K. SHEERASAGAR ANVESH	14D41A04A2	GENPACT	https://www.genpact.com/	09-02-2018
25	S. VEDA CHANDANA	14D41A04J4	GENPACT	https://www.genpact.com/	09-02-2018
26	B YUKHTI	14D41A0430	GENPACT	https://www.genpact.com/	09-02-2018
27	SANKOJU TEJASWINI	14D41A04J9	GENPACT	https://www.genpact.com/	09-02-2018
28	B LAXMI PRASANNA KUMAR	14D41A04N1	ALIENS DEVELOPERS	https://www.aliensdevelopers.com/	07-05-2018
29	V KRANTHI	14D41A04M1	ALIENS DEVELOPERS	https://www.aliensdevelopers.com/	07-05-2018
30	G. BHAVANA	14D41A0469	ALIENS DEVELOPERS	https://www.aliensdevelopers.com/	07-05-2018
31	SANKOJU TEJASWINI	14D41A04J9	ALIENS DEVELOPERS	https://www.aliensdevelopers.com/	07-05-2018
32	GANAKANAPALLI NAVEENA	14D41A0460	ALIENS DEVELOPERS	https://www.aliensdevelopers.com/	07-05-2018
33	MANASA KALLEM	14D41A0494	ALIENS DEVELOPERS	https://www.aliensdevelopers.com/	07-05-2018

36	ARIPELLY SAIKUMAR	14D41A0412	SIA	https://www.SIA.com/	21-04-2018
37	ARROJU SHIVANI	14D41A0413	SIA	https://www.SIA.com/	21-04-2018
38	ARUTLA MEGHANA	14D41A0414	ALIENS DEVELOPERS	https://www.aliensdevelopers.com/	07-05-2018
39	ATTHELI NIKHIL	14D41A0415	ALIENS DEVELOPERS	https://www.aliensdevelopers.com/	07-05-2018
40	AZMEERA SUMAN	14D41A0416	INTELLICRATS INFOSOLUTIONS P LTD	https://www.intellicratsinfosolutions.com/	03-04-2018
41	B ARUN KUMAR	14D41A0417	CISTRON INFOTECK PVT LTD	https://www.cistroninfoteckpvtltds.com/	03-05-2018
43	ADEPU AKHIL	14D41A0403	CDK GLOBAL	https://www.cdkglobal.com/	07-05-2018
84	M DEEPTHI REDDY	14D41A04B5	QSPIDERS JSPIDERS	https://www.qspidersjspiders.com/	20-03-2018
85	M NIKHIL REDDY	14D41A04B6	SIA	https://www.SIA.com/	21-04-2018
86	M PRANEETH KUMAR REDDY	14D41A04B7	GENPACT	https://www.genpact.com/	09-02-2018
96	NALLAMASA POOJA	14D41A04E3	GENPACT	https://www.genpact.com/	09-02-2018
98	NARISINGA KALYANI	14D41A04E5	QSPIDERS JSPIDERS	https://www.qspidersjspiders.com/	20-03-2018
99	PALSA SAI SURESH	14D41A04F1	QSPIDERS JSPIDERS	https://www.qspidersjspiders.com/	20-03-2018
101	P SRI HARI NAIDU	14D41A04F3	GENPACT	https://www.genpact.com/	09-02-2018

LIST OF STUDENTS PARTICIPATED IN PAPER/POSTER PRESENTATION

S. No	Date	Name of the event	Venue	Name of the student	Awards
1	21-03-2018	Poster Presentation	Sicet, Ibp	V VISHALA	First Prize
2	21-03-2018	Poster Presentation	Sicet, Ibp	S PRASANNA	Second Prize
3	21-03-2018	Poster Presentation	Sicet, Ibp	M PRAVALIKA	Second Prize

INDUSTRIAL VISITS

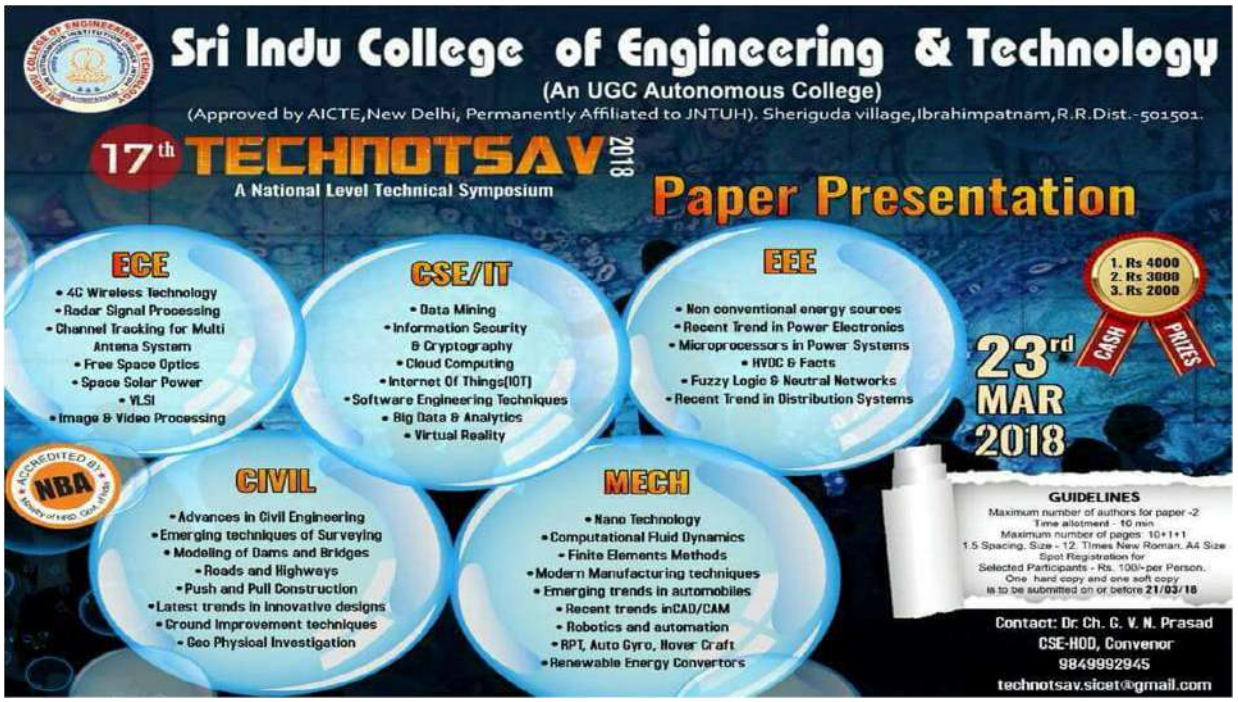
S.no	Name of the visiting	Contribution in teaching	Academic year	Impact analysis
1	DLRL	State Machine Implementation using FPGA	2017-2018	Students were exposed to DLRL working environment and State Machine Implementation using FPGA
2	BHEL	Study of PLC Machine	2017-2018	Students were exposed to BHEL working environment and Study of PLC Machine
3	BHEL	Programmable Logic Controllers (PLC)	2017-2018	Students were exposed to BHEL working environment and Programmable Logic Controllers (PLC)
4	RCI	Digital Timer Implementation Using 7-Segment disply	2017-2018	Students were exposed to RCI working environment and Digital Timer Implementation Using 7-Segment disply
5	BHEL	Study of CNC Machines	2017-2018	Students were exposed to BHEL working environment and Study of CNC Machines
6	DRDL	Ground telemetry System	2017-2018	Students were exposed to DRDL working environment and Ground telemetry System
7	DRDL	Telemetry System for Missile Applications	2017-2018	Students were exposed to DRDL working environment and Telemetry System for Missile Applications

PROFESSIONAL BODY MEMBERS

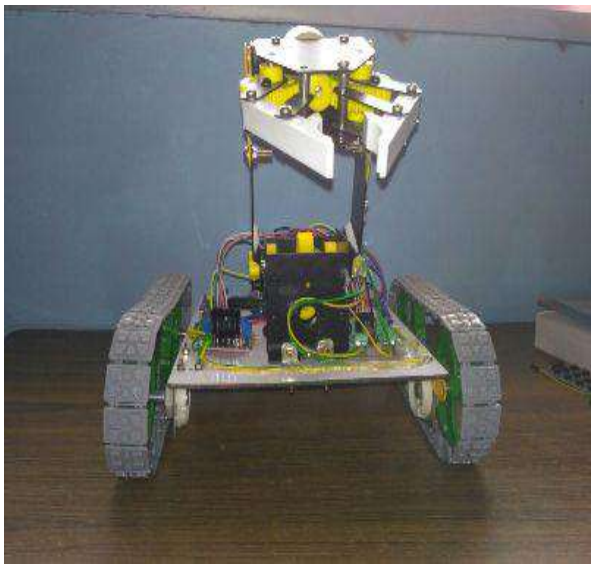
S.No	Name of the faculty	Name of professional society as member
1	**P.Mukunthan**	**ISTE,** ISRD **& IAENG**
2	**G. Suresh**	**IETE, ISTE,** ISRD **& IAENG**
3	**N C Sendhil Kumar**	**ISTE,** ISRD **& IAENG**
4	**N Subash**	**ISTE,** ISRD **& IAENG**
5	**J Martin**	**ISTE,** ISRD **& IAENG**
6	**N Tamilrasan**	**ISTE,** ISRD **& IAENG**

7	**S. SURESH**	**ISTE,** ISRD **& IAENG**
8	**T.S. KARTHIK**	**ISTE,** ISRD **& IAENG**

PHOTO GALLERY

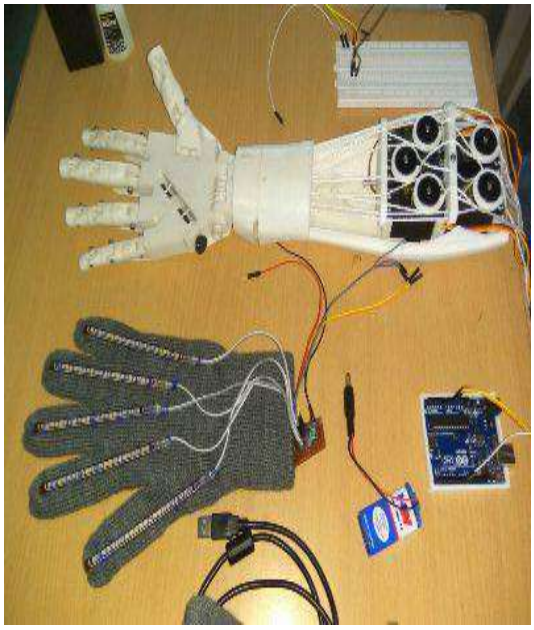


PROTOTYPE MODELS

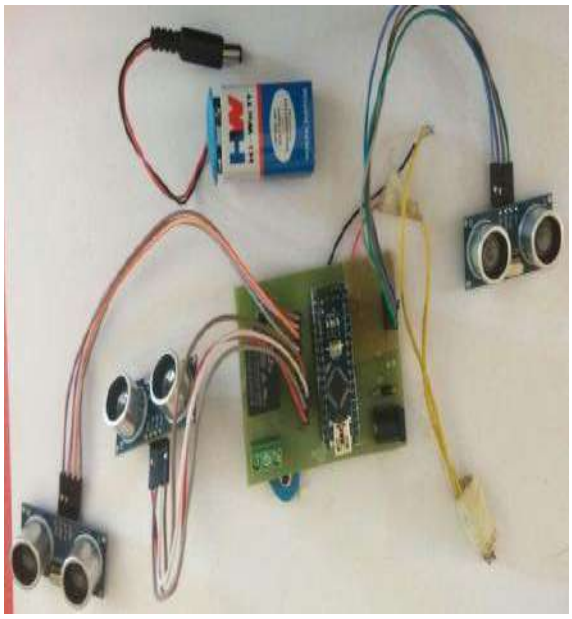


Intelligent line following robotic vehicle

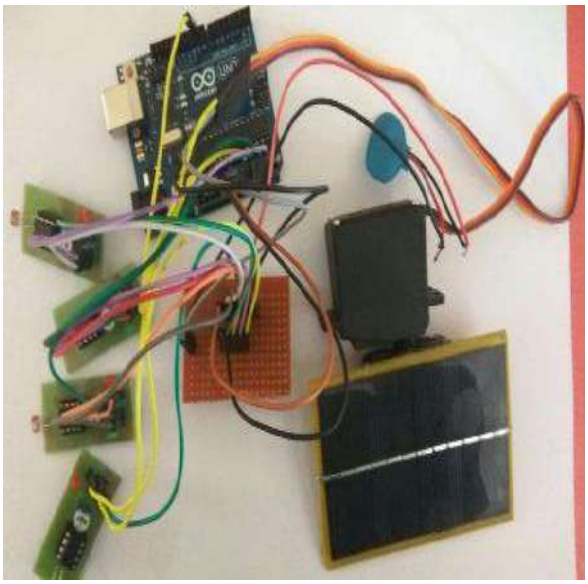
DIY Drone 2.0



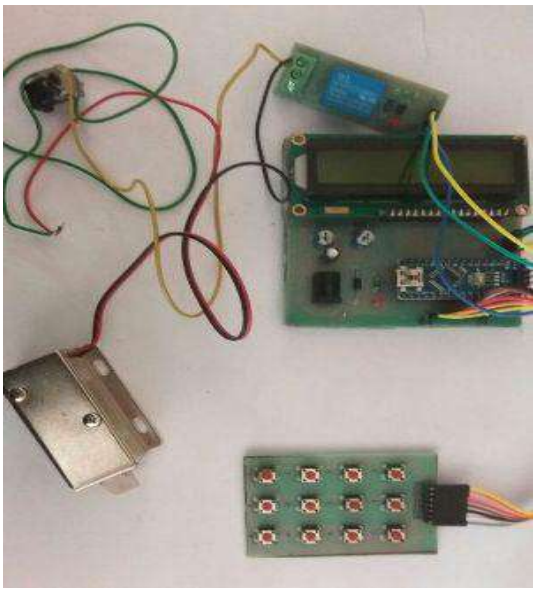
Bionic hand



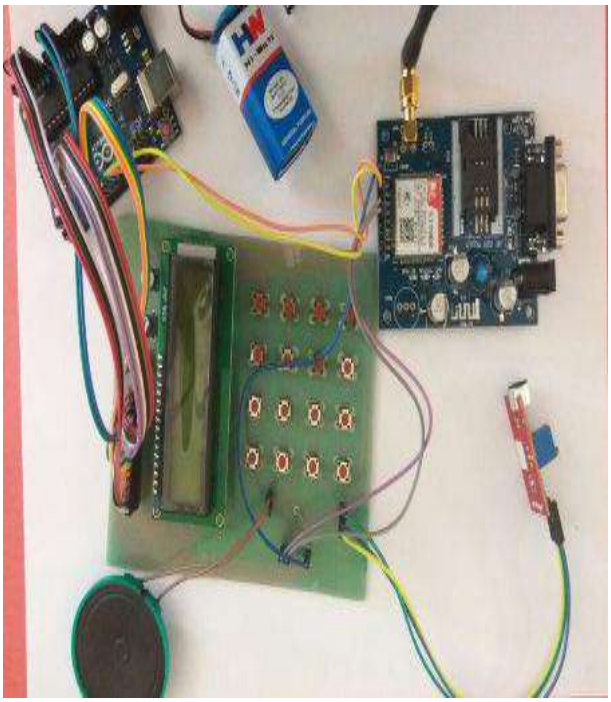
Real time vehicle tracking system



Railway gate



FM Radio Transmitter



Data Acquisition System

TECH TALK

AMAZON'S NEW PRIME AIR DRONE FEATURES A WEIRD TAILSITTER DESIGN

Amazon is finally starting to address some of the actual challenges with drone delivery, making us slightly less skeptical

Photo: Jordan Stead/AmazonAmazon's newly redesigned Prime Air delivery drone features obstacle avoidance technology to make it safer in real environments.

Editor's Picks

Amazon Promises Package Delivery By Drone: Is It for Real?

Wing Officially Launches Australian Drone Delivery Service

In the Air With Zipline's Medical Delivery Drones

Amazon has been working away at its Prime Air urban and suburban drone delivery for years. Many years. It's been at least half a decade now. And for the entire time, we've been complaining that Amazon has been focusing on how to build drones that can physically transport objects rather than how to build drones that can safely and reliably transport objects in a manner that makes economic sense and that people actually want.

At its re:MARS conference today, Amazon showed off a brand-new version of its Prime Air drone. The design is certainly unique, featuring a hybrid

tailsitter design with 6 degrees of freedom, but people have been futzing with weird drone designs for a long time, and this may or may not be a.) what Amazon has actually settled on long-term or b.) the best way of doing things, versus other techniques like Google Wing's dangly box. What's much more exciting is that Amazon seems to now be addressing the issue of safety, and has added a comprehensive suite of on-board sensing and computing that will help the drone deal with many of the complex obstacles that it's likely to encounter while doing its job.

We should point out right away that Amazon's pleasant piano music means that you cannot hear what this drone sounds like in flight, and noise is turning out to be one of the biggest problems with urban and suburban delivery drones, as Google Wing has discovered in Australia. Amazon seems to be taking the same "oh people will just get used to it" approach as Google is, and for better or worse that's probably what's going to end up happening. Sigh. The really cool bit about today's announcement is the addition of sense and avoid to Amazon's drones, which Jeff Wilke, Amazon's chief executive for worldwide consumer, detailed in a blog post: Our drones need to be able to identify static and moving objects coming from any direction. We employ diverse sensors and advanced algorithms, such as multi-view stereo vision, to detect static objects like a chimney. To detect moving objects, like a paraglider or helicopter, we use proprietary computer-vision and machine learning algorithms. For the drone to descend for delivery, we need a small area around the delivery location that is clear of people, animals, or obstacles. We determine this using explainable stereo vision in parallel with sophisticated AI algorithms trained to detect people and animals from above.

A customer's yard may have clotheslines, telephone wires, or electrical wires. Wire detection is one of the hardest challenges for low-altitude flights. Through the use of computer-vision techniques we've invented, our drones can recognize and avoid wires as they descend into, and ascend out of, a customer's yard.

This is a good start, although I would push back a little bit on the assertion that Wilke ends with that "our drones are safe." This technology certainly has the potential to make Amazon's drones much safer than they were before, but my guess is that statements like "our drones can recognize and avoid wires" would probably be more accurately written as "our drones have the ability to recognize and avoid wires most of the time when conditions are favorable."

Photo: Jordan Stead/AmazonJeff Wilke, Amazon's chief executive for worldwide consumer, unveils the new Prime Air drone at the company's re:MARS conference.

Whether the sensors are effective at low sun angles, when there's lots of glare after it rains, or in particularly challenging situations like trying to detect black wires against black asphalt from above is unclear. It's awesome that Amazon is tackling all of this stuff head-on, but it's important to be very careful not to take these "we've solved it" statements at face value until Amazon has shown exactly what their drone can do, which as far as we know they have not. And even with all this progress, I can't help but come back to the fundamental question of whether this kind of drone delivery is actually worth

it. I love robots, and I'm having a very hard time thinking of this as anything more than a novelty, especially considering the growth of both autonomous vehicles and sidewalk robots (which Amazon is also working on). Amazon brings up the environmental impact of delivery as another argument in favor of drones, suggesting that "an electric drone, charged using sustainable means, traveling to drop off a package is a vast improvement over a car on the road." Likely true, as long as the car is delivering just one package—I'm not sure how the numbers work out if you're comparing drones to a loaded delivery van, though. And again, noise pollution needs to be considered, too. Delivery drones are the right answer, I think, in some cases. Medical supply delivery is one. Rural delivery is another. It's less clear whether suburban delivery really fills a long-term need, or whether companies like Amazon and Google are mostly just doing it because they can. But either way, it's great to see Amazon acknowledging these hard problems, and we're looking forward to seeing some of their technologies, like obstacle avoidance, in action, which Amazon says could happen within months.

EDITORIAL TEAM

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