Faculty of
Engineering
Science &
Technology
NEWS
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Faculty of Engineering, Science and Technology Hosts Robotics Hackathon 2026

Malé, Maldives – June 2026 – The Faculty of Engineering, Science and Technology (FEST) of The Maldives National University successfully hosted the Robotics Hackathon 2026: Autonomous Maze Solving Challenge from 18 June to 20 June 2026.

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The event provided students with a valuable opportunity to apply theoretical knowledge in robotics, electronics, programming, and engineering design to a practical, real-world challenge.

Throughout the three-day hackathon, participants worked collaboratively to develop innovative solutions, refine their robot designs, and overcome technical obstacles while enhancing their problem-solving and teamwork skills.

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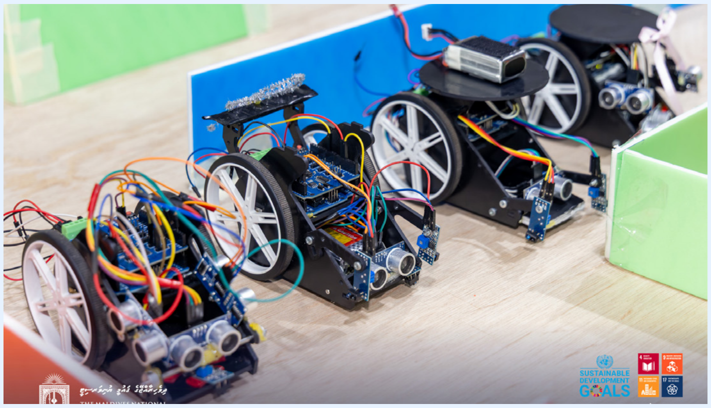
Organized under the Electronics for Robotics course, the hackathon brought together 12 students who were challenged to design, build, program, test, and demonstrate autonomous robots capable of navigating a maze without human intervention.


SUSTAINABLE DEVELOPMENT GOALS

The Autonomous Maze Solving Challenge required students to integrate hardware and software components effectively, demonstrating their understanding of sensors, control systems, embedded programming, and autonomous navigation. The event encouraged creativity, critical thinking, and hands-on learning, allowing students to gain practical experience in an emerging field of engineering and technology.

Robotics Hackathon:
AUTONOMOUS MAZE SOLVING
CHALLENGE
18th to 20th June 2026

Bachelor of Architectural Design Students Visit STO Powermix Male' Site

Bachelor of Architectural Design Semester 1 students visited the State Trading Organization Plc Powermix Male' Site on 23rd April as part of their academic learning experience and industry exposure activities. The visit provided students with the opportunity to observe and understand the practical aspects of concrete production and quality management in a professional industrial setting.

During the visit, students were introduced to the complete process involved in ready-mix concrete production, including batching, mixing, transportation, and quality control procedures. The experience allowed students to connect theoretical concepts studied in class with real-world construction practices and industry standards.

The visit also gave students valuable insight into the importance of precision, material testing, and operational coordination in ensuring the quality and consistency of concrete used in construction projects across the Maldives. Through direct observation and interaction with industry professionals, students gained a deeper appreciation of the technical processes that support the built environment.

The department extends its sincere appreciation to Mohamed Hassan, Iqbal Ansari, Ibrahim Yameen, and Mohamed Rishwan for their time, guidance, and support in making the visit informative, engaging, and educational for the students.

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Beyond the Haze: Insights from PM2.5 monitoring in the Maldives

On the occasion of the World's Environment day 2026, Faculty of Engineering, Science and Technology lecturer Ms. Noora Khaleel presented her ongoing research findings and implications in monitoring PM2.5 across the Maldives. The presentation titled "Beyond the Haze: Insights from PM2.5 monitoring in the Maldives" was delivered to raise public awareness of air pollution and its implications for public health, climate, and environmental sustainability.

Air pollution is often associated with heavily industrialized cities, yet research shows that the Maldives is not immune to fine particulate pollution (PM2.5), microscopic airborne particles that can penetrate deep into the lungs and bloodstream, increasing the risk of respiratory and cardiovascular diseases.

The session introduced the PM2.5 monitoring network established using calibrated low-cost TSI BlueSky sensors across the Greater Malé Region (GMR) and several atolls managed by the Maldives National University in collaboration with Duke University, USA, and funded by the US Department of State. Continuous monitoring has provided one of the most comprehensive datasets on PM2.5 in the Maldives.

Global Call for Climate Action'
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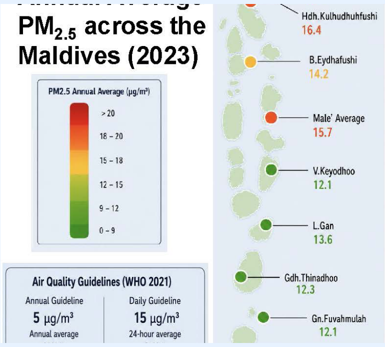
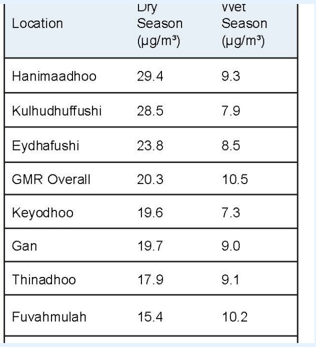

PM2.5 across the Maldives (2023)
PM2.5 Annual Average (µg/m³)
> 20
18 – 20
15 – 18
12 – 15
9 – 12
0 – 9
Air Quality Guidelines (WHO 2021)
Annual Guideline
5 µg/m³
Annual average
Daily Guideline
15 µg/m³
24-hour average
Hdh.Kulhudhuhfushi
16.4
B.Eydhafushi
14.2
Male' Average
15.7
V.Keyodhoo
12.1
L.Gan
13.6
Gdh.Thinadhoo
12.3
Gn.Fuvahmulah
12.1



Location	Dry Season (µg/m³)	Wet Season (µg/m³)
Hanimaadhoo	29.4	9.3
Kulhudhuffushi	28.5	7.9
Eydhafushi	23.8	8.5
GMR Overall	20.3	10.5
Keyodhoo	19.6	7.3
Gan	19.7	9.0
Thinadhoo	17.9	9.1
Fuvahmulah	15.4	10.2

Monitoring results revealed that the PM2.5 concentrations are considerably higher during the northeast monsoon (dry season/ iruvai moosun) than during the southwest monsoon(wet season/ hulhangu moosun). While air quality generally improves with increased rainfall during the wet season, annual average concentrations in several locations remain above the World Health Organization's recommended guideline of 5 µg/m³, highlighting the need for continued monitoring and mitigation efforts. Findings also indicated the major influence of transboundary pollution, particularly from biomass burning in the Indian subcontinent during the dry season and local sources such as electricity generation, transport, construction, and waste burning become more prominent during the wet season. Understanding the balance between regional and local pollution sources is critical for designing effective national air quality management strategies.

The presentation also discussed the importance of indoor air quality, noting that household activities such as cooking and inadequate ventilation can significantly affect personal exposure to PM2.5. This emphasized the need for improved public awareness and healthier indoor environments. It concluded by highlighting that improving air quality supports public health, climate action, and multiple Sustainable Development Goals, including those related to health, sustainable cities, and climate action. Continued research, evidence-based policymaking, and regional collaboration hence are essential to safeguarding the health of communities and building a cleaner, more resilient Maldives.

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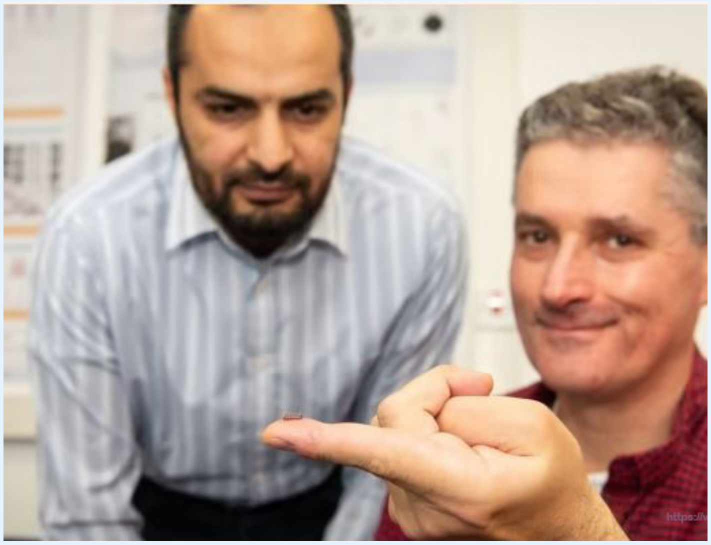

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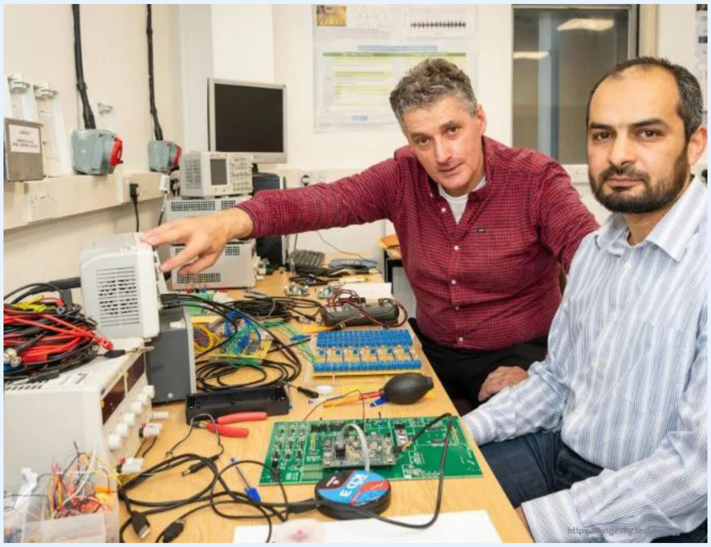

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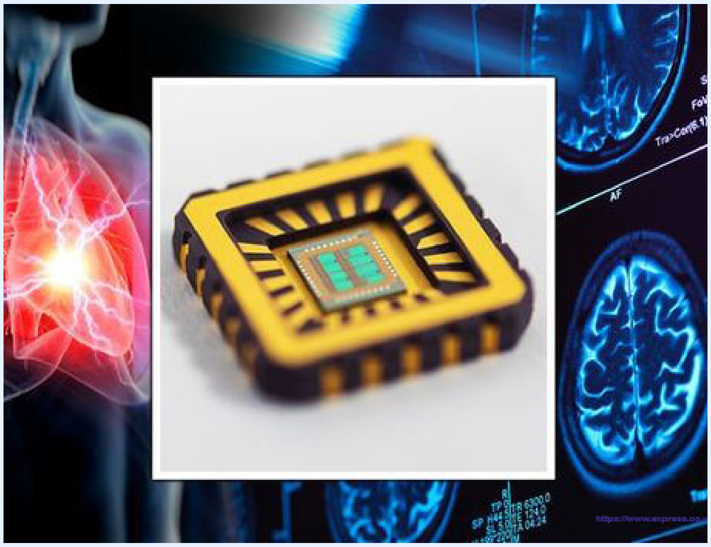

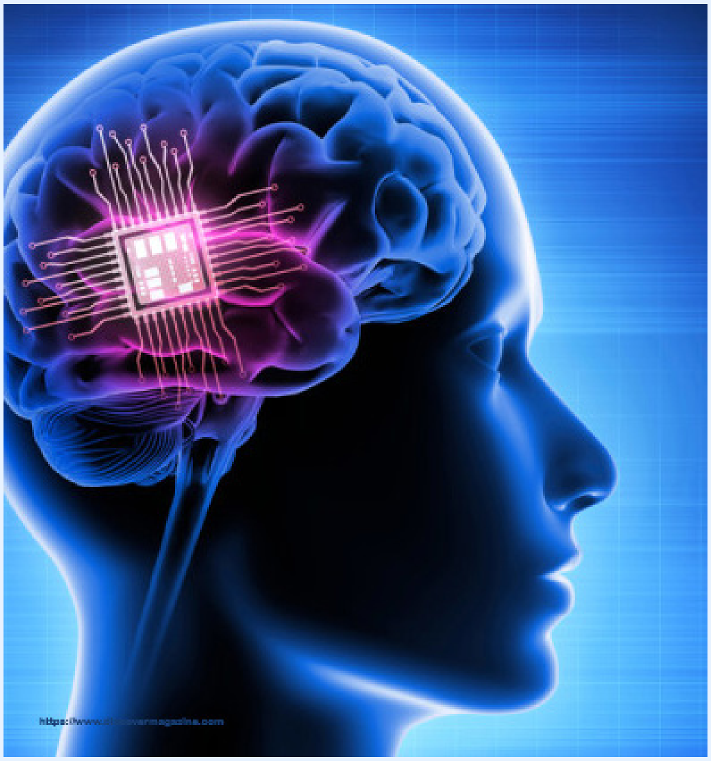

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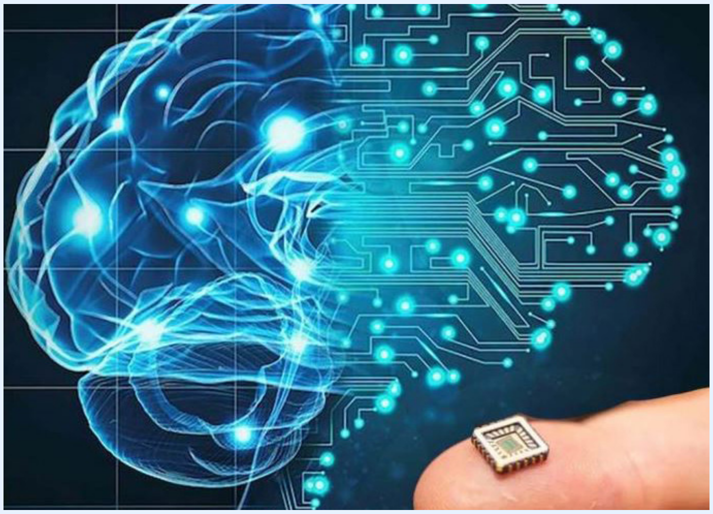

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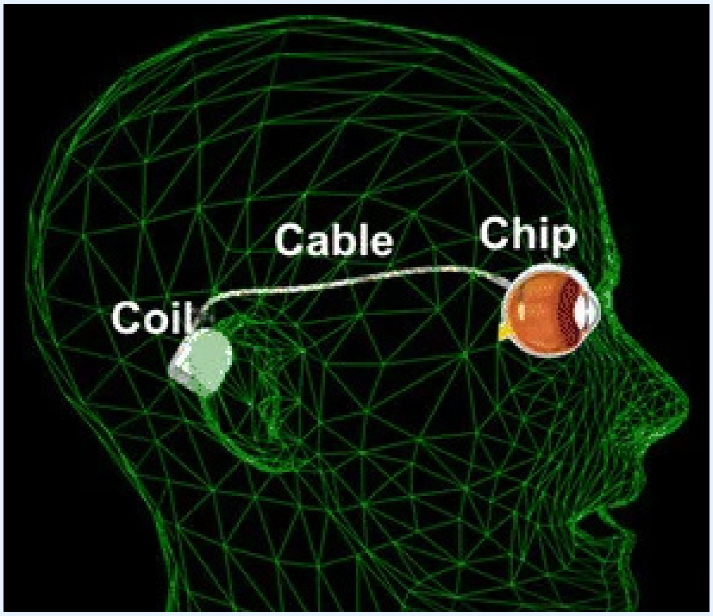

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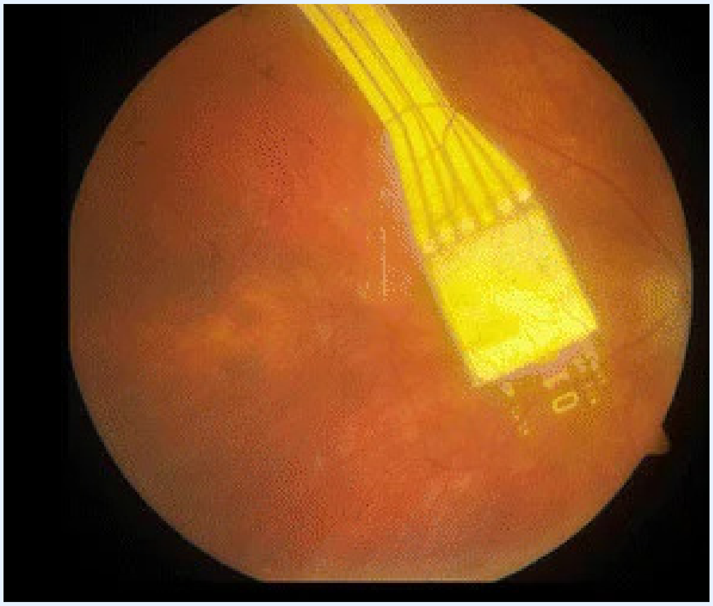

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