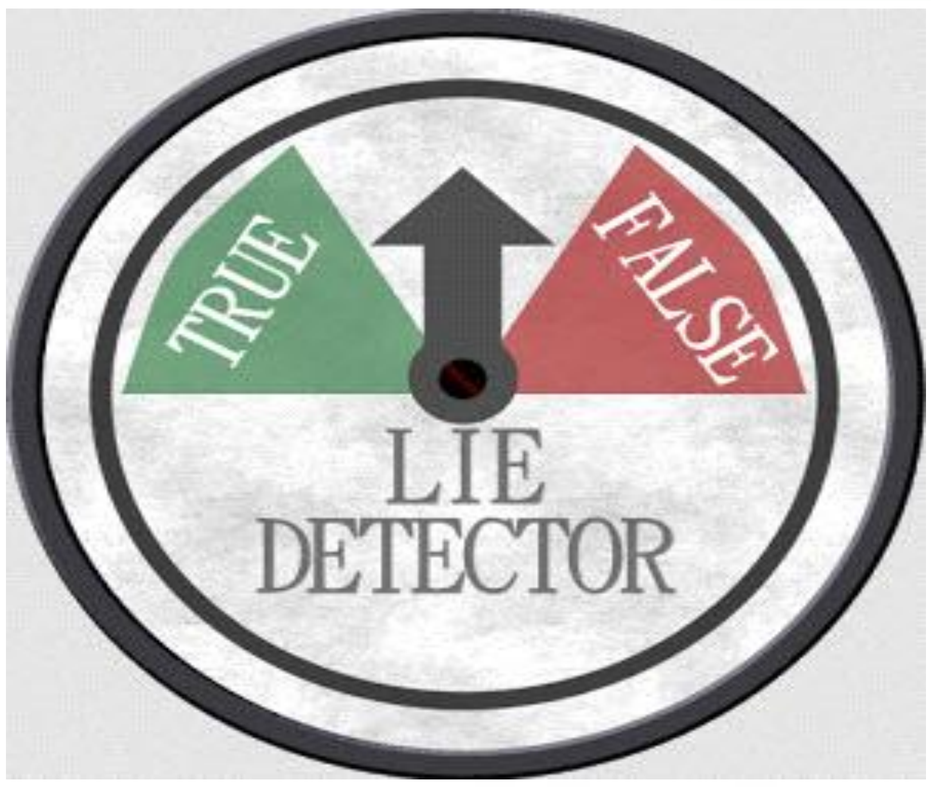
STEM Education for Sustainable Development

SCIENCE ON STAGE TURKU 2024

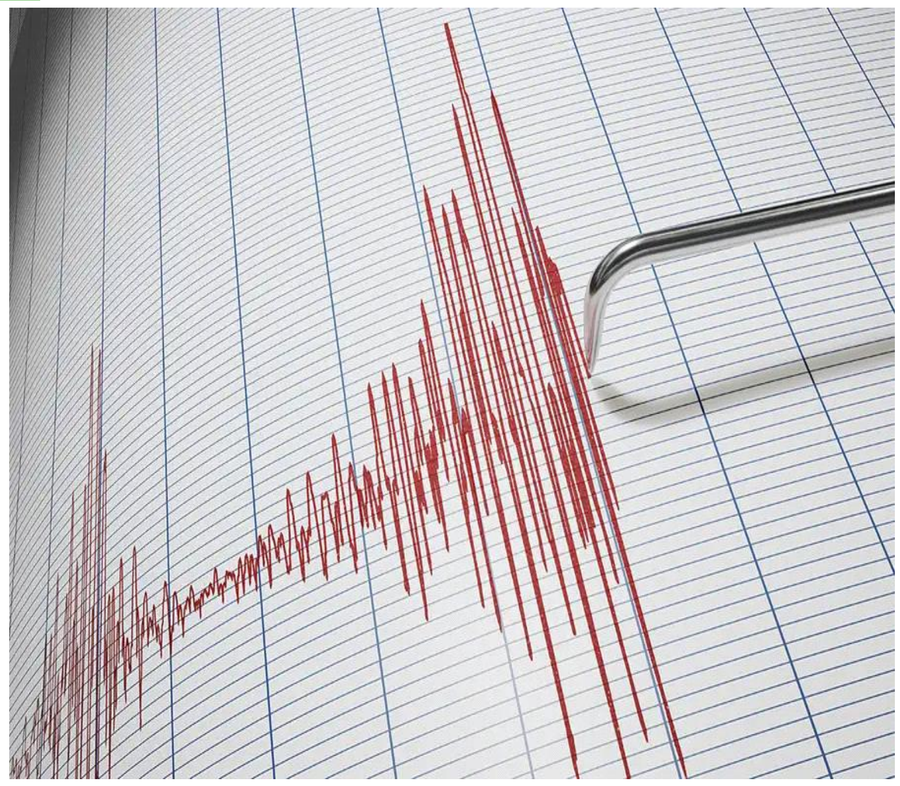
Nektarios Kourakis| Gel Vamou | Chania | Greece

Notification IOT device,alarm in case of out of bounds emotional state or heart r. & Lie Detector

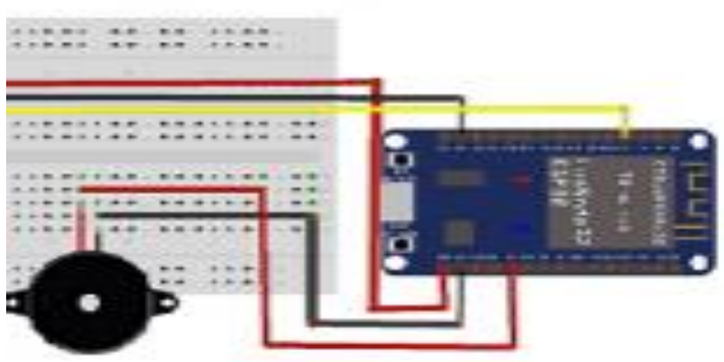


SECONDARY SCHOOL

PHYSICS TEACHER :
NEKTARIOS KOURAKIS



Also iot device=>



In many open software applications such as arduino and its sensors, developed by STEAM lab students, there is a need for children to play with these tools outside of curriculum. In the majority of cases this turns out to be particularly constructive for the students, just like in our own project*. And this is because beyond the knowledge obtained with a STEM-arduino application, * biomedical elements-knowledge are learned experientially and creatively. Also this is a cheap project and easy to make.

Conclusion:**A lie detector, maybe. But definitely a mood change detector!!! A project that combines sensors from the robotics course with biomedical knowledge.**

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NEKTARIOS KOURAKIS | GEL VAMOU | CHANIA | GREECE

TRAFFIC LIGHT WITH PRIORITY ON AMBULANCE-SUPERSONIC HORN THAT ALSO WORKS AS A WIRELESS CONTROLLER→PATENTED

Noticing the following event: on a school bus trip, on a main street of our city, an ambulance stopped in front of us with a long line of cars in front of it, at traffic lights. With the ambulance siren call, the cars could not make way because of the traffic lights. If the traffic lights stay green for a long time, the problem would be solved. And that's how our idea was born. The original idea: with an electromagnetic control such as a garage door or TV remote, the driver would activate the green traffic lights. But unfortunately we didn't have it - lack of materials - or rather fortunately because a patent came up that I thought of: WITH AN ULTRASONIC SIGNAL FROM THE AMBULANCE TO ACTIVATE GREEN FOR THESE TRAFFIC LIGHTS AND RED FOR THE OTHERS.

Modified Hardware and software

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Also smart city project

Conclusion:Experimenting with the HC SR04 resulted in a patent on a smart city project.