
# NEWSLETTER

# STIMULUS

## VISION

To be a centre of excellence in carving young aspirants to acquire state-of-the art knowledge and skills in Computer Engineering for the development of society.


## MISSION

M1: To develop and improve an academic environment conducive to teaching and learning.

M2: To enrich the creative abilities of the students for enhancing the competence in problem solving and tackling challenges.

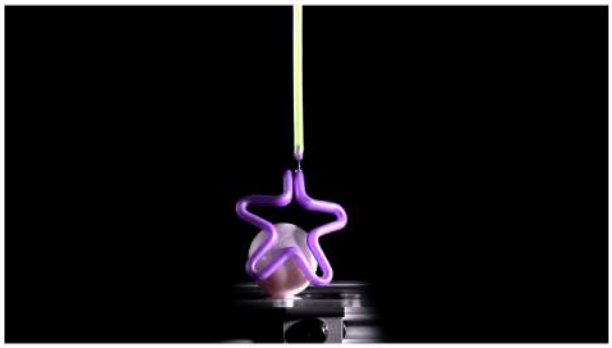
M3: To facilitate better interactions among the industry, the academia and the society to absorb and practise state-of-the-art technologies.

M4: To prepare students for responsible engagement in sustainable societal activities and lifelong learning.

ASSOCIATION OF COMPUTER ENGINEERING STUDENTS
CENTRAL POLYTECHNIC COLLEGE,THIRUVANANTHAPURAM

# TECH ARTICLES

## Squishy inflatable tubes could make programmable soft robots



Inflatable squishy tubes could be used to build soft robots that move when air is pushed through them.

Robotic hands made from metal frequently end up crushing delicate objects like fruit when trying to pick them up, so researchers often experiment with making them out of gentler materials. Pierre-Thomas Brun at Princeton University and his colleagues have found that soft, inflatable tubes may just do the trick.

The team filled various moulds with a rubber-like material called polyvinyl siloxane that starts off liquid but becomes solid and elastic as time passes. While the material was still fluid, the researchers pushed...

## Construction robot builds massive stone walls on its own

An autonomous robot with a large gripper can transform a pile of boulders into huge stone walls without mortar – learning on its own how to place each irregularly-shaped stone as the next building block.

The robotic excavator has built a stone wall 6 metres high and 65 metres long through a public park on the outskirts of Zurich, Switzerland. It also used a large shovel to autonomously landscape the park's terrain into terraces.

## Trust and safety – the most important tech job you've never heard of

RECENTLY I was at a conference full of tech nerds and policy wonks, when I saw an old colleague wearing a T-shirt emblazoned with a unicorn and a dinosaur. A banner beneath the two beasts read "Trust & Safety", as if these basic values were mythological and extinct. It was the kind of cute-but-bitter meme that only makes sense if you are deeply enmeshed in one of the tech industry's latest backroom roles: an amalgamation of security, privacy and user experience design, all crammed into one job called trust and safety.

## Some unbreakable encryption keys are accidentally leaking online

Hardware faults are leaking hundreds of supposedly unbreakable encryption keys on to the internet, researchers have found – and spy agencies may be exploiting the loophole to read secret messages.

RSA is a widely-used encryption scheme that depends on two numbers – a public key, which anyone can use to encrypt a message intended for a particular person, and a private key, which decrypts the messages and only that person has access to. Individuals can also use their private key to "sign" a message, allowing...

## NVIDIA wants to use AI chatbots to help build better chips

US computing firm NVIDIA is adapting AIs to help its human engineers build better computer chips.

Tech companies have been scrambling to secure supplies of NVIDIA's chips – graphics processing units that sell for tens of thousands of dollars each – in the midst of an AI gold rush and subsequent chip shortage. NVIDIA is the leading supplier of chips for training and developing AIs, and its latest efforts put large language models (LLMs) to work improving such chips.

## OpenAI CEO Sam Altman lands new job at Microsoft after surprise firing

On 17 November, OpenAI's board of directors unexpectedly fired the company's CEO Sam Altman. The board cryptically announced that Altman "was not consistently candid in his communications with the board, hindering its ability to exercise its responsibilities". This led to a wave of rumours about the reason for the decision.

Within hours, Greg Brockman, the president of OpenAI, was removed from the board and later resigned from his position at the company. Three senior researchers – Jakub Pachocki, Aleksander Madry and Szymon Sidor – also quit.

# TECH ARTICLES

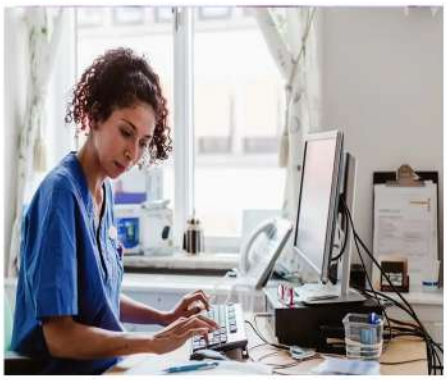
## Game-playing DeepMind AI can beat top humans at chess, Go and poker

A single artificial intelligence can beat human players in chess, Go, poker and other games that require a variety of strategies to win. The AI, called Student of Games, was created by Google DeepMind, which says it is a step towards an artificial general intelligence capable of carrying out any task with superhuman performance.

Martin Schmid, who worked at DeepMind on the AI but who is now at a start-up called EquiLibre Technologies, says that the Student of Games (SoG) model can trace its lineage back to two projects. One was DeepStack, the AI created by a team including Schmid at the University of Alberta in Canada and which was the first to beat human professional players at poker. The other was DeepMind's AlphaZero, which has beaten the best human players at games like chess and Go.

The difference between those two models is that one focused on imperfect-knowledge games – those where players don't know the state of all other players, such as their hands in poker – and one focused on perfect-knowledge games like chess, where both players can see the position of all pieces at all times. The two require fundamentally different approaches. DeepMind hired the whole DeepStack team with the aim of building a model that could generalise across both types of game, which led to the creation of SoG.

## GPT-4 gives medical advice that saves doctors' time but can be harmful

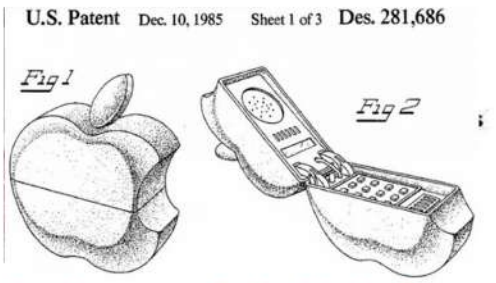


AI chatbots that answer medical queries could save doctors' time, but also run the risk of making recommendations that harm the people seeking advice.

Shan Chen at Harvard University and his colleagues conducted an experiment in which six oncologists addressed a variety of questions from 100 fictional people with cancer, who the doctors knew were not real. The questions were presented via a hospital electronic messaging system.

## DO YOU KNOW ?


**Google's First Tweet was in binary**




**Apple were originally designing an apple shaped flip phone**


**Every iPhone advertisement has the time set to 9:41.**

EDITORIAL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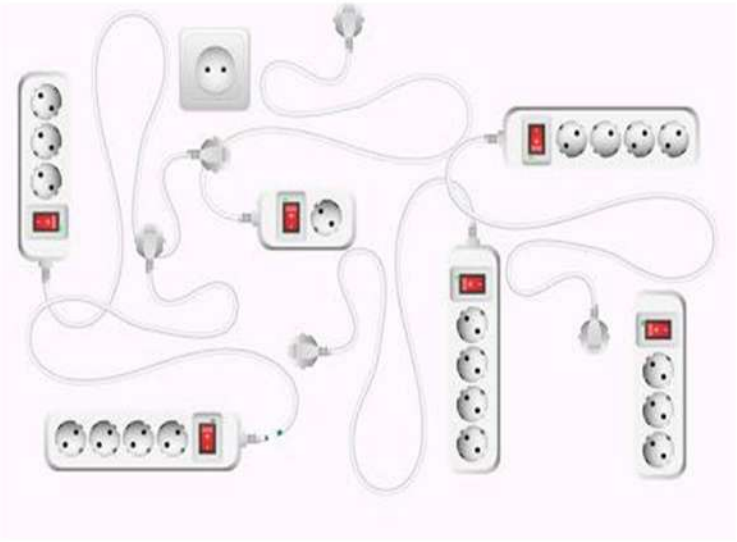
# TECH RIDDLES

**How many phones can be charged at once?**



**I am a mini solar powered computer.**

**What am I? :- A calculator.**


## FUN RIDDLES

**What did the spider do on the computer?**

**A: Made a Website!**

**What do the cookie and the computer have in common?**

**A: They both have chips.**

**What do you call a nurse that treats websites?**

**A: A URLologist**

**Why did Mark Zuckerberg visit China?**

**A: To see the "Great Firewall".**

**Why did the spider get a job in I.T**

**A: He was a great web designer!**