# INSPIRING EXCELLENCE

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## INTEGRAL UNIVERSITY
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## INTEGRAL UNIVERSITY
### LUCKNOW - INDIA

ACCREDITED A+ BY NAAC

SUSTAINABLE DEVELOPMENT GOALS

## DEPARTMENT OF COMPUTER APPLICATION
### TECHNICAL COMMITTEE
*Presents*

SEP - 2023

MONTHLY
*Tech Dose*

**WELCOME TO DIGITAL AND TECHNICAL WORLD**

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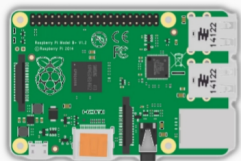## 01 Windows 11 Update Unleashes Copilot, AI Magic, and More!

Microsoft is rolling out a significant update for Windows 11, featuring Windows Copilot integration, AI enhancements for Paint, Snipping Tool, and Photos, RGB lighting support, a revamped File Explorer, and more. Windows Copilot brings Bing Chat to the desktop, while developers gain access to Dev Home for simplified Windows dev machine setup, utilizing Microsoft's Windows Package Manager (winget) for streamlined app and tool installations.



## 02 Raspberry Pi 5: Next-Level Speed and 4K Dual Display Awesomeness



The upcoming Raspberry Pi 5, set to launch in October, boasts significant improvements over its predecessor. With a quad-core Arm Cortex-A76 CPU clocked at 2.4GHz and a VideoCore VII GPU running at 800MHz, it offers remarkable speed gains, especially in graphics performance. Additionally, it features dual HDMI outputs for dual 4K displays (60Hz with HDR support), two USB 3.0 ports, two USB 2.0 ports, and Gigabit Ethernet.

## 03 ChatGPT Expands Horizons: Internet Access Enabled!

OpenAI's ChatGPT is getting a significant update, allowing it to access the internet for current and credible information. This capability was recently announced on OpenAI's official X (formerly Twitter) account, enabling ChatGPT to provide up-to-date information with direct source links. Though you need to subscribe it first.



## The Future of Air Travel: Joby Aviation's Air Taxi Milestone

## 04

Joby Aviation, an air taxi start-up, sent its aircraft to Edwards Air Force Base in Southern California for the first supersonic flight. Air taxis work like helicopters but also have wings to fly like planes. NASA will test the Joby aircraft, looking at air traffic, flights, and infrastructure from 2024. The goal is to plan how future air transportation systems will work together.



## 05 Meta's Threads: From Boom to Search for New Users



Meta's Threads experienced a remarkable surge, with over 100 million users joining within just 5 days of its launch. However, this initial momentum has decreased, and the platform now faces challenges in attracting new users. Principal Analyst at Insider Intelligence, suggests that Threads cannot solely rely on Twitter defectors ( users switching from X to Threads ) to drive continued growth.

## 06 Popular Apps Gather More Data Than Needed, NordVPN Reveals

New research by NordVPN shows that up to 74% of popular mobile apps collect excessive data, surpassing what's necessary for their functionality. This study examined the top five apps in 18 categories for Android and iOS. Many of these apps request access to unrelated device functions, and users often grant permission without reading terms and conditions, warns NordVPN's cybersecurity advisor, Adrianus Warmenhoven.



**NordVPN**®

## 07 Meta's Quest 3: Bridging the Gap with Mixed Reality



Introducing
Meta Quest 3

On October 10th, Meta is set to launch the Quest 3, its newest virtual reality headset. Priced at $499, the Quest 3 offers expected upgrades such as a higher-resolution display and an improved processor for the leading VR gaming console. However, what sets it apart is Meta's push into "mixed reality" (MR), a term that, typically refers to a video feed overlaid with digital objects passed through to a headset display.

## 08 Adobe Raises the Prices with New AI Features

Adobe (ADBE.O) has introduced generative AI features in its software after extensive testing. These features, including image generation from text, are now available. Adobe plans to raise prices while compensating contributors for their AI work. Adobe is known for products like Photoshop, central to its Creative Cloud subscription service.



Adobe

## 09 Enhanced Ray-Ban Smart Glasses by Meta

Meta unveils Ray-Ban smart glasses with improved audio, a 12 MP camera, and Qualcomm Snapdragon AR1 Gen1. They're water-resistant, with an enhanced touchpad, and prioritize livestreaming to Facebook or Instagram with real-time comments. Integrated with Meta AI, they're voice-controlled with "Hey Meta."



Right Camera

Left Camera

## 10 Medium Takes a Stand on Content Exploitation by AI

Web publishing platform Medium is taking action to block OpenAI's GPTBot, an agent used to scrape web content for AI model training. This signals the potential formation of platforms that may soon form a unified group against what many consider an exploitation of their content.
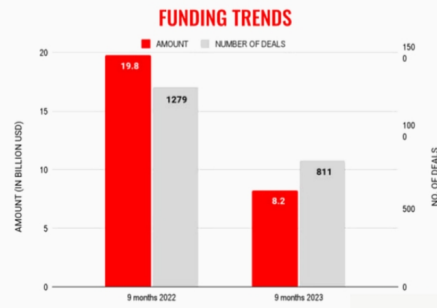


AI

## 11 India's Plan: 5 Million Jobs in Tech Manufacturing



India's Minister of State for Electronics and Information Technology, Rajeev Chandrasekhar, recently mentioned that India's efforts in expanding its tech sector manufacturing are expected to generate approximately 5 million jobs in the coming three years. He highlighted that prominent companies like Apple and Micron are actively seeking reliable partners and favorable economic environments. This push for tech sector manufacturing in India is part of the country's ambitious goal to grow its electronics industry to a $300 billion valuation.

## 12 India Sees Sharp Drop in Tech Funding in Q3 2023

In Q3 2023, India's tech funding dropped for the third time in a row. It was the lowest in five years, with only $1.5 billion raised, down 29% from the previous quarter and 54% compared to Q3 2022. Late-stage funding decreased by 33%, while early-stage and seed-stage funding fell by 74% and 75%, respectively, compared to the same quarter last year.

**FUNDING TRENDS**
AMOUNT ▪ NUMBER OF DEALS

*(Bar chart: 9 months 2022 — Amount 19.8, No. of Deals 1279; 9 months 2023 — Amount 8.2, No. of Deals 811)*

Source: Yourstory

## 13 Precision Meets Innovation: iPhone 15 Pro Welcomes India's NavIC

The Apple iPhone 15 Pro series now supports India's NavIC satellite system, developed by ISRO. NavIC offers more precise information, accurate timings, and valuable forecasts, which the Indian government believes can be crucial in critical situations. The government aims to encourage other smartphone manufacturers to incorporate NavIC into their devices by 2023.

## 14 Safety First: Google's Android Earthquake Alerts for India

Google's earthquake alert system for Android devices in India utilizes smartphone sensors as seismometers, developed in partnership with NDMA and NSC. It offers early alerts in local languages with two types: "Be Aware" and "Take Action." These alerts are triggered for MMI 5+ shaking during a 4.5 magnitude quake, overriding notification settings and playing a loud alert sound.

## 15 Google at 25: From Garage to Global Giant

Google's 25th birthday

Google recently celebrated its 25th anniversary. It started as a project called "BackRub" by students Larry Page and Sergey Brin at Stanford University. They got a $100,000 investment and worked from a garage. Now, Google is a huge tech company with popular products like YouTube, Android, Gmail, and Google Maps. Important moments include AdWords, Gmail offering 1GB storage, and buying Android and YouTube. Sundar Pichai, Google's boss, is excited about AI (smart computers). In the next 25 years, Google will need to keep inventing to stay at the top, especially in AI.

## Unknown Facts

- A single cloud can weigh over 1 million pounds.

- Combining all the bitcoin mining operations worldwide is equivalent to the computing power of 3.7 million supercomputers.

- Dead skin cells are a main ingredient in household dust.

- The tallest mountain in the solar system is Olympus Mons, which is located on Mars. It is about three times taller than Mount Everest.

**DID YOU KNOW?**

# News of the Month

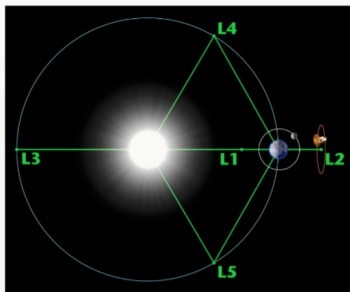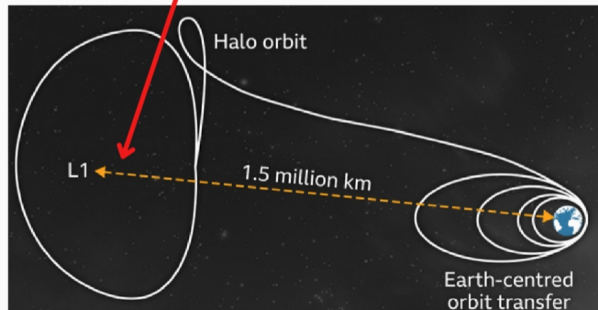## Aditya-L1: India successfully launches its first mission of the Sun


ADITYA - L1

Aditya L1 Mission will be first solar mission that will study **Sun** for nearly 5yrs. The **ISRO** PSLV rocket spacecraft is lifted off from (SDSC SHAR), Sriharilota at 11:50(indian-time)
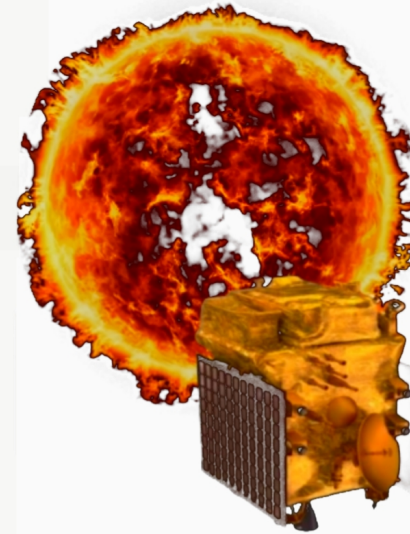
Major Objective's:
- Coral Heating & Solar Wind Acceleration.
- Coupling & dynamic of solar atmosphere.
- Solar wind distribution and temperature anisotropy.

Aditya-L1 Parking Spot
Lagrange Point


Halo orbit
L1
1.5 million km
Earth-centred orbit transfer


L4
L3    L1    L2
L5

Lagrange Point are the position in space where the Gravitational forces of two body (like the Sun and the Earth) creates pockets of Equilibrium. These can be used by spacecraft to stay docked in a single position without requiring to burn fuel

- Shikha Rai



*321 Tonne PSLV-XL carried Aditya L1 rocket to Earth's orbit.*
*Its length is 44.4 meter.*

## Why is the study of Sun important?

Just as our Earth is in the solar system, Sun is its center. All eight planets revolve around the Sun. Life on earth is possible due to the Sun. Energy continuously flows from the Sun. We call them charged particles. After studying about the Sun it can be seen that changes to the Sun can effect the life in space and on Earth.

## The Journey of Aditya L1 in 5 points

**1** PSLV rocket ejected Aditya L1 in 235 x 19500 Km orbit of the Earth

**2** **16 Days** it will remain in Earth's orbit. It will fire thrusters 5 times to increase orbit

**3** Again thrusters will be fired and it will depart towards the L1 point
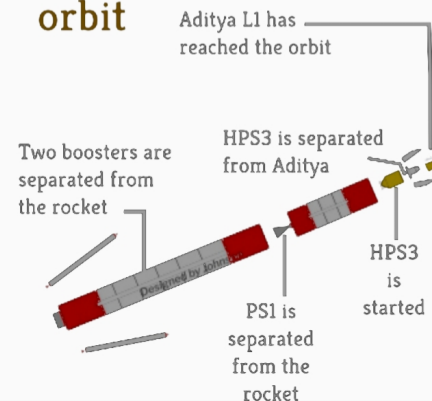
**4** After **110 days** of journey, Aditya will reach the point L1

**5** Aditya will be put in the L1 point through thruster firing

## Aditya L1 reached the orbit



Aditya L1 has reached the orbit

Two boosters are separated from the rocket

HPS3 is separated from Aditya

PS1 is separated from the rocket

HPS3 is started

- Johnson

# National IT Professional Day



We celebrate National IT professional day on the third Tuesday of every September, on September 19 this year, to recognize the technical experts- Network Engineers, system administrators, database admins , and many more types of I.T professionals that make sure our computer run smoothly.
It takes a solid set of skills and talent to fill the shoes of I.T professional

## History Of National IT Professional Day

National I.T. Professional Day was created in 2015 in an effort to show appreciation for the tech wizards who take care of the nuts and bolts so that the average worker's station stays hooked up to the company network and operates flawlessly.

Technology has practically advanced at the speed of light since then and someone has always had to keep up with the latest technical advent in order to manage any misfires in a given system. These guys and gals are nothing less than essential to successful business practices.

Shikha Rai & Zarka Hassan

# National IT Professional Day Timeline

**Year. 1975**

**Truly Prophetic**
An article in "Business Week" predicts the proliferation of the 'paperless office,' citing the growing popularity of the personal computer.

**Year. 2000**

**Save a Tree**
The overall use of physical paper in American offices levels off — ostensibly due to a generational shift — and begins to decline.

**Year. 2015**

**It's About Time**
I.T. professionals get their due recognition when a holiday is created just for them.

**Year. 2020**

**This Darn Virus**
I.T. professionals have to work long hours and adapt to massive change to help their companies keep up and stay afloat during the COVID-19 pandemic.

Shikha Rai & Zarka Hassan