



India's Leading Suppliers
Of Pick & Place Machines

"Just As Musicians And Authors Earn
Royalties, Professors Should Too."
- Pratham Mittal, Founder, Masters' Union



₹100

OCTOBER 2025

The New **electronics**

FOR YOU

Reducing AI's Dependence on Powerful GPUs?

MUST READ

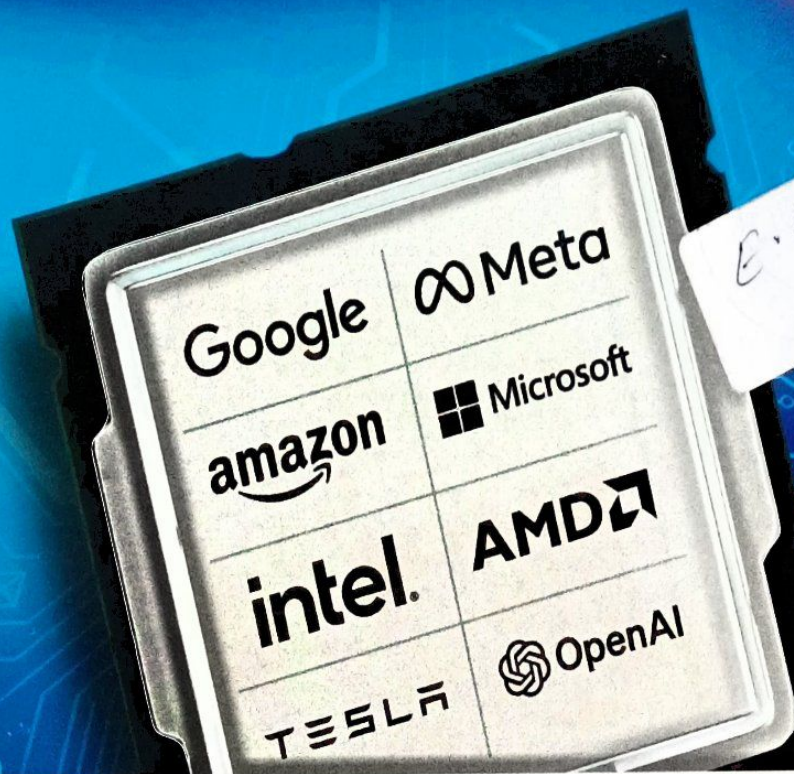
GST 2.0: Why
India's Electronics
Sector Welcomes
It And Awaits A
Festive Boost

Think That USB
Port's Just for
Charging?
Think Again.

"The AI Revolution
Is Here—And You
Are Not Too
Late To Join"

IoT: Running
Language Models
On Edge Devices

A Small Touch-
Controlled Solid
State Relay



An
EFYGROUP
Publication

Vol. 57 No. 10 • ISSN 0013-516X
Pages: 120 • UK £5. US \$10

FROM CONCEPT TO PRODUCT
ELEMENT14 SUPPORTS YOUR JOURNEY

DESIGN. PROTOTYPE. LAUNCH – ALL IN ONE PLACE



element14
AN AVNET COMPANY

Contact us today!

in.element14.com

1800 108 3888 (toll free)



CONTENTS

TECHNOLOGY

30 CAREERS: "The AI Revolution Is Here—And You Are Not Too Late To Join"



38 INTERVIEW: "Teaching Is Intellectual Creation. Just As Musicians And Authors Earn Royalties, Professors Should Too." — Pratham Mittal, Founder, Masters' Union

40 UPDATE: Think That USB Port's Just for Charging? Think Again.



44 INNOVATIONS: Reducing AI's Dependence On Powerful GPUs

BUSINESS

72 MANUFACTURING: "Smart Manufacturing Rests On Three Pillars: Process, Technology, And People"



76 PURCHASE: Buyers' Guide: Leading Suppliers Of SMT Pick-And-Place Machines

82 POLICY IMPACT: GST 2.0: Why India's Electronics Sector Welcomes It And Awaits A Festive Boost



DESIGN

85 CIRCUIT: 5 Interesting Reference Designs For Wearable Electronics

87 IoT: Internet Of Things: Running Language Models On Edge Devices

91 IoT: IoT Gateways: A Layer Between IoT Devices And Cloud



DO-IT-YOURSELF

93 CIRCUIT IDEA: Delay-Off Appliance Timer

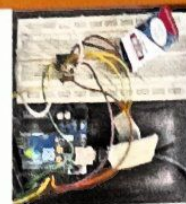
96 PROJECT: Laptop-Based HMI For DC Motor Speed And Direction Control

99 PROJECT: An IoT Gas And Environment Monitor Sensor

102 PROJECT: Water Level And Temperature Monitor With TFT Graphics Using Arduino

106 PROJECT: Pi Zero World Wide Web Streaming On Mobile Hotspot

110 PROJECT: A Small Touch-Controlled Solid State Relay



REGULARS

- 8 Research & Innovation Updates
- 16 Truly Innovative Electronics
- 20 New Products
- 42 Electroons 2.0

- 56 Dashboard: Key Industry Trends That Can Shape The Future Of Your Business
- 58 Innovators & Startups
- 66 Industry News: Industry Updates

EDITOR	Rahul Chopra
EDITORIAL CORRESPONDENCE	Phone: +91-9811553335 E-mail: editor@efy.in
SUBSCRIPTIONS & MISSING ISSUES	Phone: +91-9811553335 E-mail: support@efy.in
BACK ISSUES, BOOKS, KITS, COMPONENTS, etc	Phone: +91-9811553335 E-mail: support@efy.in
NEWSSTAND DISTRIBUTION	Phone: +91-9811553335 E-mail: efy@efy.in
ADVERTISEMENTS NEW DELHI (HEAD OFFICE)	Phone: +91-9811553335 E-mail: efy@efy.in
MUMBAI	E-mail: mrowest@efy.in
BENGALURU	E-mail: rmosouth@efy.in
CHINA	Worldwide Focus Media E-mail: china@efy.in
GERMANY	PMS Plantenberg Media Service GmbH E-mail: germany@efy.in
JAPAN	Tandem Inc. E-mail: japan@efy.in
TAIWAN	E.K. Media E-mail: taiwan@efy.in
UNITED KINGDOM	ASA Media E-mail: uk@efy.in
UNITED STATES	E & Tech Media E-mail: usa@efy.in

Printed, published and owned by Ramesh Chopra. Printed at Thomson Press India Private Limited, 18/35 Delhi Mathura Road, Faridabad 121007, Haryana, on the first day of each month and published from D-87/1, Okhla Industrial Area, Phase-1, New Delhi 110020. Copyright 2025. All rights reserved throughout the world. Reproduction of any material from this magazine in any manner without the written permission of the publisher is prohibited. Although every effort is made to ensure accuracy, no responsibility whatsoever is taken for any loss due to publishing errors. EFY will not be responsible for any wrong claims made by an advertiser. Disputes, if any, will be settled in a New Delhi court only.

SUBSCRIPTION RATES

EFY = Electronics For You

PRINT MAGAZINE	1 YEAR (12 copies each)	3 YEARS (36 copies each)	5 YEARS (60 copies each)
WITHIN INDIA (IN RUPEES)			
EFY (Rs 100/copy)	960	2700	4200
SAARC COUNTRIES (IN US\$ BY AIR)			
EFY	57	155	NA
OTHER COUNTRIES (IN US\$ BY AIR)			
EFY	114	310	NA

Courier delivery within India @ Rs 50 per copy

e-magazine subscriptions within India are available at half the rates mentioned here.

Overseas rates for each e-magazine in US\$: 1 year: \$12; 3 years: \$33; 5 years: \$50 only

Please send payments only in favour of EFY Enterprises Pvt Ltd through demand draft/cheque/money order to D-87/1, Okhla Industrial Area, Phase 1, New Delhi 110020, or online at: <http://subscribe.efyindia.com> or scan the QR code.

