

AI Runs on Chips. The Story Started in Lehigh Valley 75 Years Ago.

By Paul Muschick

LEHIGH VALLEY - A lot of technology that's driving commerce and making lives more fun and efficient has roots in the Lehigh Valley.

It all started 75 years ago, on a production line in Allentown. The world's first mass production of transistors, the forerunner of semiconductors, occurred in 1951 at Western Electric, a division of Bell Labs.

Today, Lehigh Valley continues to be a hub of technological innovation, fueled by talent that was drawn here by Western Electric and its successors.

More than 1,100 people are employed at 35 Lehigh Valley semiconductor and related technology businesses, including global brands Broadcom, Cisco, Coherent, Intel, and Nokia (previously Infinera), and smaller companies such as AAYUNA and iDEAL Semiconductor.

Those companies are developing, producing, and assembling semiconductors that are relied on by not only Google, Microsoft, AT&T, and Verizon, but Meta, AWS, Netflix, and the Department of Defense, among others.

"Long before smartphones, cloud computing, and artificial intelligence, the technological revolution began with a transistor produced in the Lehigh Valley. Seventy-five years later, Lehigh Valley remains at the forefront of innovation, with companies developing and manufacturing the semiconductor technologies that power the modern world," said Kristin Cahayla-Hoffman, Vice President of Business Development & Attraction at Lehigh Valley Economic Development Corporation (LVEDC).

Here's a look at some of the key players in Lehigh Valley's technology ecosystem.

Broadcom operates a wafer fabrication facility in Upper Macungie Township that develops and manufactures indium phosphide semiconductor lasers and detectors for fiber-optic networks and data centers. Those technologies are key to recent developments in artificial intelligence and machine learning.

Coherent is a global leader in silicon carbide (SiC) materials and devices that are critical to the rapidly growing power electronics market used in electric vehicles, renewable energy systems, and grid infrastructure.

In response to this rapidly growing global demand, Coherent is expanding its facility in Palmer Township, dedicated to producing these state-of-the-art SiC materials. These materials are then utilized in the manufacture of highly efficient power electronics, with automotive EV's being the largest market.

iDEAL, located at Ben Franklin TechVentures in Bethlehem, has developed "SuperQ™," a technology at the atomic scale that dramatically improves energy efficiency. It is applicable to all types of semiconductors and works by opening more room on the devices for conduction, reducing resistance and energy loss.

Intel engineers based in Lehigh Valley design semiconductor devices that are fabricated at other Intel facilities and packaged abroad. These chips are used in cell towers and networks all over the world.

Nokia designs, manufactures, packages, assembles, and tests optoelectronic packages and modules built around its unique optical, compound semiconductor photonic integrated circuits.

Chips produced in the company's California-based fabrication plant are sent to its 60,000 square-foot advanced testing and packaging facility in Upper Macungie Township. There, those chips are tested for quality and then assembled into modules to be inserted into optical transport equipment used for networking, cloud connectivity, and data center interconnect services.



Area Students Named To Spring 2026 Dean's List At IUP

By IUP

INDIANA, Pa. - The following students have been named to the spring 2026 dean's list at Indiana University of Pennsylvania. Students achieve dean's list status when they are full-time (12 or more credits) and have achieved a grade point average of 3.25 or higher.

The full list of dean's list students is available at www.iup.edu.

Dean's list students, their hometowns, majors and degrees they are seeking are:

Pen Argyl: Riley Paige Wolf, Bachelor of Science in Speech and Language Pathology

Bath: Eliza Marie Rogerson, Bachelor of Arts in Psychology

Bethlehem: Gregory D. Sanders, Bachelor of Arts in Anthropology; Paige Isabel Anderson, Bachelor of Science in Finance; Tomi Elizabeth Williams, Bachelor of Science in Medical Imaging

Easton: John Gaspare Ferretti, Bachelor of Arts in Psychology

Hellertown: Roberta J. Silverthorn, Bachelor of Science in Human Resource Management; Micaela Marie Jebitsch, Bachelor of Arts in Economics

Nazareth: Isabel Natalia Rodriguez, Bachelor of Fine Arts in Art Studio

Northampton: Reia Sanchez, Bachelor of Arts in Sociology

Since its founding in 1875, IUP has evolved from a teacher-training institution into a doctoral research university recognized for its commitment to student success and achievement. IUP's Impact 150 comprehensive campaign is designed to honor a legacy of educational excellence while looking toward a future of innovation, public service, and leadership in healthcare education, including the first college of osteopathic medicine at a public university in the commonwealth.



Safety Tip

Campfires are a timeless summer tradition, but they also come with a big responsibility.

Whether you are camping in a state park or forest or spending time in your backyard, follow these tips to make sure your campfire doesn't get out of hand:

Always use a designated fire ring or pit made of metal or stone. Clear everything flammable like dead leaves, grass, and sticks from at least five feet from your fire ring.

Make sure you have a water source nearby to extinguish your fire.

Add fuel a little bit at a time, keeping the fire less than three feet high and three feet wide.

Fully extinguish your fire by pouring lots of water on it until it stops hissing, then stir the ashes well with a shovel. If you see smoldering or red embers, pour more water on it. Repeat until the ashes are cool. If it's too hot to touch, it's too hot to leave.

Never build a campfire in windy, dry conditions. Check your local, county, and state burn bans before planning a campfire.

Enjoy the season, and remember to never leave a fire unattended!

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