



range Bytes

Volume 48 No 7

July 7, 2024

\$1.50

NOCCC meetings for Sunday July 7, 2024

MAIN MEETING

Continuing the “AI” theme, there will be some video presentations on how an “AI” is built, programmed, and used.

Special Interest Groups (SIGs) & Main Meeting Schedule

9:00 AM – 10:30 AM

Beginners Digital Photography**Science 131**
Questions and Answers about Digital Photography

Linux for Desktop Users.....**Science 127**
Beginners’ Questions about Linux

10:30 AM – 12:00 PM Noon

3D Printing**Science 127**
Questions and Answers about 3D printing

Advanced Digital Photography... ..**Science 131**
Questions and Answers about Digital Photography

Linux Administration**Science 129**
More topics about the Linux operating system

Mobile Computing.....**Science 109**
We discuss smart phones, tablets, laptops, operating systems and computer related news. **Waiting for a new leader.**

12:00 PM Noon – 1:00 PM

3D Printing..... **Science 127**
Questions and Answers about 3D printing if requested.

PIG SIG **Irvine Courtyard**
Bring your lunch. Consume it in the open-air benches in front of the Irvine Hall or join the group that goes to the student cafeteria. Talk about your computer(s) and life experiences.

1:00 – 3:00 PM Main Meeting

At the last meeting, Eric Stein showed us how artificial intelligence is quickly transforming the marketing industry. Instead of traditional methods of creating photos for ads, like the photographer in his studio, or traveling to a site, just sign in to the AI of your choice. Describe a photo that you would like to create, and the AI will generate what it thinks you asked for. Not quite what you had in mind, tell it to change an angle, shift the color, change the background, etc., etc., etc. Want to know what demographic likes a certain type of ad, ask the AI. But verify the answer.

BOD.....3-4PM..... Science 129

3:00 PM – 4:00 PM

Board Meeting.....
Science 129

Verify your membership renewal information by checking your address label on the last page. If it is not right, let the treasurer know.

Mark your calendars for these meeting dates
2024: Jul 7, Aug 4, Sep 8, Oct 6, Nov Dec 3,
2025: Jan 5, Feb 2, Mar 2 Apr 6, May 4.

Coffee, cookies and donuts are available during the day in room 129 .
Food and drinks need to remain outside the Irvine Auditorium.

“Friends Helping Friends”
since April 1976

Table of Contents

Main Meeting ___ 1

Special Interest Groups ___ 1

Again, verify your membership renewal information by checking your address label on the last page

Mark your calendars for these meeting dates _____	1
Contact information and email forwarding addresses _____	2
Editor's Report: AI info? _____	2
A Little More Humor _____	3
Directions and map _____	4

Special email addresses

Jim Sanders is: editor@noccc.org
membership@noccc.org

Our Website
WWW.NOCCC.ORG

Reminder: Membership expiration dates are based on the date that you joined the club. **Example**, you joined or re-upped your membership in the club in October of 2023. That means that in October 2024 you should pay your membership dues. In the address label area of the Orange Bytes is your join month/expiration month.

Reprint Policy

Permission to reprint articles is granted to non-profit groups and software/hardware vendors whose products we review, provided North Orange County Computer Club is credited as the source and the original author is given full credit. We request that any non-profit that reprints one our members articles send a PDF copy of your newsletter to the NOCCC Orange Bytes editor: editor@noccc.org.

Board of Directors

Contact information and email forwarding addresses

President Robert Strain
president@noccc.org (cell 714.222.2140)

Vice President (acting) Jim Sanders
vicepresident@noccc.org (714-544-3589)

Secretary position is open
secretary@noccc.org

Treasurer Dr. Don Armstrong
treasurer@noccc.org (home 714.773.1187)

Webmaster Jim Sanders
webmaster@noccc.org (home 714.544.3589)

Director Terry Dickson
terry@noccc.org (home 714.899.9913)

Director Dennis Martin
dennis@noccc.org (home 951.926.3065)

Director Richard Miller
richard@noccc.org (cell 909.955.2140)

Editor's Report

COMPUTEX Taipei, or Taipei International Information Technology Show is a computer expo held annually in Taipei, Taiwan. Since the early 2000s, it is one of largest technology trade shows in the world. If one wants to see or present the latest computer related technology, COMPUTEX Taipei is the place to be.

Remember that Taiwan is not all that large an island. In fact the state of Nevada is 7.9 times larger than Taiwan. None the less, TSMC, Taiwan Semiconductor Manufacturing Company, is the world's largest semiconductor chip manufacturer with a market share of over 50%. Not only does it make the largest amount of chips, but it leads the world in making the worlds most complex and dense semiconductors. TSMC's latest production process, N3P, is able to have 224,200,000 transistors in one square millimeter. For the metric challenged, that is 0.00155 square inch. To put that in a different perspective, the transistor count of the Zilog Z80 is 8,500. So that one square millimeter of N3P silicon can contain as many transistors as it takes to make 26,376, Z80 chips.

TSMC is arguably the most important company in the world. It is the only corporation in history that could cause a global depression if it were forced to halt production. Keeping that in mind, it may be one of, if not the reason, China has refrained from invading Taiwan. It has been reported that TSMC has mined their factory and would blow it up if China did invade.

The most recent COMPUTEX was held from 4 June to 7 June 2024 with sessions about such topics as high-performance computing, artificial intelligence, next-gen connectivity and sustainability. A total of 1,500 companies from 36 countries participated in the exhibition, using 4,500 booths. About 50,000 domestic and international industry experts visited the show.

Taiwan's best exhibition halls are a landmark on the nation's business horizon. This showground consists of 250,465 square feet and it is divided into 4 exhibit halls. That seems like a pretty good size until you compare it with the size of the Tustin Costco at 159,000 square feet. For such an important show, it is even tiny and crowded compared to the Las Vegas Convention and Visitors center which is ten times that size at 2,500,000 sq ft (230,000 m²) of exhibit space and hosts shows with an estimated, only 4 times as many participants at 200,000. Not to mention Las Vegas is a lot easier to get to than Taiwan. "We were thrilled not just to welcome more than 138,000 people to CES 2024, but to back up those numbers with an independent audit," said Kinsey Fabrizio, president, CTA.

Why should all that be of interest?
Because TSMC is producing the new Nvidia Blackwell GPU. What is the Blackwell GPU?

First announced by Nvidia CEO Jensen Huang at the GTC conference in San Jose, California, last month, the Blackwell GPUs contain 208 billion transistors and 192 gigabytes of HMB3 memory with **eight terabytes/second** of bandwidth, the company says. NVIDIA unveiled the NVIDIA Blackwell platform, which promises generative AI on trillion-parameter large language models (LLMs) at up to 25x less cost and energy consumption than the NVIDIA Hopper architecture. The Blackwell B100 has 128 billion more transistors and five times the AI performance of the Hopper H100.

The top four most valuable companies in the world based on Market Capitalization?

Microsoft 1MSFT, Market Cap, 3.36 trillion,
Apple 2AAPL, Market Cap, 3.22 trillion,
NVIDIA 3NVDA, Market Cap, 3.04 trillion
Alphabet (Google), Market Cap, 2.30 trillion

What is market capitalization?
Market cap is **the total dollar value of a company's**

outstanding shares of stock. For example, if a company has 1 million shares of outstanding stock and the stock currently trades at \$50 per share, then its current market cap is \$50 million.

A data point:
If you put \$10,000 in Nvidia (NASDAQ: NVDA) stock 10 years ago, you would have \$2.74 million today -- a life-changing return of over 27,400%. Over that time frame, the company has experienced several boom-and-bust cycles based on demand for its graphics processing units (GPUs).

How does Nvidia make money?
In a number of different areas. A large one is in video cards where it is the undisputed market leader. The GeForce RTX 4090 sells for over \$1500.00. Peanuts compared to the B100.

How much does a Blackwell B100 cost?
HSBC estimates that Nvidia's 'entry' B100 GPU will have an average selling price (ASP) between \$30,000 and \$35,000, which is at least within the range of the price of Nvidia's H100. The more powerful GB200, which combines a single Grace CPU with two B200 GPUs, will reportedly cost between \$60,000 and \$70,000.

A LITTLE HUMOR

MURPHY'S OTHER 15 LAWS

1. Light travels faster than sound. This is why some people appear bright until you hear them speak.
2. A fine is a tax for doing wrong. A tax is a fine for doing well.
3. He who laughs last, thinks slowest.
4. A day without sunshine is like, well, night.
5. Change is inevitable, except from a vending machine.
6. Those who live by the sword get shot by those who don't.
7. Nothing is foolproof to a sufficiently talented fool.
8. The 50-50-90 rule: Anytime you have a 50-50 chance of getting something right, there's a 90% probability you'll get it wrong.
9. It is said that if you line up all the cars in the world end-to-end, someone from California would be stupid enough to try to pass them.
10. If the shoe fits, get another one just like it.
11. The things that come to those who wait, may be the things left by those who got there first.
12. Give a man a fish and he will eat for a day. Teach a man to fish and he will sit in a boat all day drinking beer.
13. Flashlight: A case for holding dead batteries.
14. God gave you toes as a device for finding furniture in the dark.
15. When you go into court, you are putting yourself in the hands of twelve people, who weren't smart enough to get out of jury duty.

North Orange County Computer Club

**Dr. Donald Armstrong
709 Rosarita Drive
Fullerton, CA 92653**

To All Members:

The line above your mailing address now shows your joindate. Please use your join **month** to choose when to renew your membership.

Dated Material – Please deliver ASAP

Membership Level (\$)	1 Year	3 Years
Individual Member	35	90
Each Additional Family Member	15	40
Full-Time* Enrolled College Student	20	
Enrolled High School Student	15	
*Minimum 12 Semester Hours		
Business Member + Ad (Business Card)	25	
Business Member + Ad (¼ Page, ½ Page)	65,	100
Business Member + Ad (Full Page)	175	
Contributing Member	75	
Supporting Member	100	
Advocate Member	250	
Patron Member	500	

Directions to the NOCCC meeting location



Enter CA-55 N (Costa Mesa Freeway) crossing Interstate 5 toward Anaheim/Riverside for 9 miles. *Notice freeway and street signs stating "Chapman University."* Exit toward E Chapman Ave. Turn right onto N Tustin St. Turn left onto E Walnut Ave.

1) Turn left past N. Center St. for the **best place to park** in the underground parking structure (Lastinger under the sports field). Pay the small fee (\$2) to park Ask members or help@noccc.org about parking details, restrictions, and our price break!

2) Turn left onto N Center St. On the right is the Hashinger Science Center, 346 N Center St. Orange California. Parking on the University side is free. Parking on the residential side is a city violation that may cost you a **tow away and a ticket!**