



# 10 Ways to Pretend You're an Expert in Synchrophasors (And Maybe Fool Yourself!)

Co-hallucinating with ChatGPT 4o

*Kevin D. Jones, Ph.D*



# News Article

## How to Become a Synchrophasor Whisperer (Or at Least Sound Like One)

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The first of the 'Synchrophasor' series...

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# News Article

## What Synchrophasor Experts Won't Tell You: *Its Mostly Guess Work*

LEARNING FROM THE PAST

By [illegible]

[illegible text]

[illegible text]

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# News Article

## The 5 Stages of Synchronphasor Acceptance— *Which One Are You Stuck In?*

LEARNING FROM THE

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# News Article

## Why PMUs are the Grid's Answer to Middle Management

By [illegible]

[illegible text]

[illegible text]

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[illegible text]

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# News Article

## 7 Mental Shifts So Obvious Even your SCADA Data Can See Them

LEADING POSITION

Keywords: SCADA, Data, Mental Shifts

SCADA systems are the backbone of industrial operations, providing real-time monitoring and control. However, the data generated by these systems is often underutilized. This article explores seven mental shifts that can help organizations better understand and leverage their SCADA data.

1. \*\*Shift from reactive to proactive monitoring:\*\* Instead of waiting for an alarm to sound, organizations should proactively monitor data trends to identify potential issues before they escalate.

2. \*\*Shift from siloed data to integrated data:\*\* SCADA data should be integrated with other business systems to provide a holistic view of operations and improve decision-making.



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100 Ways to Improve Your SCADA System

How to Implement a Successful SCADA Upgrade



# News Article

## Waveform Warriors: 7 Mental Models to Restore Your Resilience

By [Name] | [Date]

Category: [Category]

Keywords: [Keywords]

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# News Article

## Synchrophasors and Coffee: *Keeping Experts Awake and Stressed in Equal Measure*

By [Name] | [Date]

The first paragraph of the article, discussing the importance of staying awake and stressed in the context of synchrophasors.

The second paragraph of the article, continuing the discussion on the challenges of maintaining alertness.

The third paragraph of the article, exploring the role of stress in the context of the research.

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The first featured article snippet, starting with 'The first paragraph of the article...'.

The second featured article snippet, starting with 'The second paragraph of the article...'.



# News Article

## Grid Stability: Now with 100% More Data to Stress You Out



By [Name] on [Date]

[Category]

[Sub-category]

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# News Article

Learning  
Synchrophasors:  
*Its like Learning  
to Ride A Bike, if  
the Bike Was On  
Fire*

Learning Synchrophasors: Its like Learning to Ride A Bike, if the Bike Was On Fire

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Learning Synchrophasors: Its like Learning to Ride A Bike, if the Bike Was On Fire

Learning Synchrophasors: Its like Learning to Ride A Bike, if the Bike Was On Fire



# Listicle Appendix

Stop the Synchro Struggle! 10 Mental Shifts You Need to Embrace the Inevitable

How to Become a Synchrophasor Whisperer (Or at Least Sound Like One)

The 5 Stages of Synchrophasor Acceptance—Which One Are You Stuck In?

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Grid Stability: Now with 100% More Data to Stress You Out

Learning Synchrophasors: Its like Riding A Bike, if the Bike Was On Fire

Synchrophasor Savvy: 6 Expert Tips (Or Just Really Good Guesses)

10 Ways Synchrophasors Will Make You Question Everything You Thought You Knew About the Grid (And Maybe Life Itself)

Stop Resisting! 7 Ways Synchrophasors Are Here to Improve Your Life (And Maybe Your Sanity)

10 Times Experts Were Just as Confused by Synchrophasors as You Are

10 Synchrophasor Truth Bombs You're Probably Ignoring—But Shouldn't

Why Synchrophasors Are the Future—And 7 Ways to Stop Pretending They Aren't

Phasors Gone Wild: 5 Data Surprises You'll Pretend to Understand

You Can't Ignore This: 9 Synchrophasor Facts That Will Make Your Head Spin (In a Good Way)

Expert Mode Activated: Now What Do All These Waveforms Mean?

From Zero-to Synchrophasor Hero in 10 Easy (or Not-so-easy) Steps

10 Shocking Synchrophasor Realizations That Will Make You Rethink Everything (Seriously!)

From Analog to AI: 6 Mental Shifts That Will Make Synchrophasors Your New Best Friend


10 Ways to Pretend You're an Expert in Synchrophasors (And Maybe Fool Yourself!)

7 Signs You're Stuck in the Past: Synchrophasor Realities You Need to Embrace, Like Yesterday

Why Synchrophasor Data is the Frenemy You Didn't Know You Had

Stop Resisting! 8 Ways Synchrophasors Are Dragging Utilities Kicking and Screaming into the Future





# Stop the Synchro Struggle!

*8 Expert Mental  
Shifts You **NEED**  
to Embrace the  
Inevitable*





# Synchrophasors: A Fundamental Shift

- Transmission is fundamental.
- Measurement is fundamental.
- New capability arises from seeing the previously unseeable.

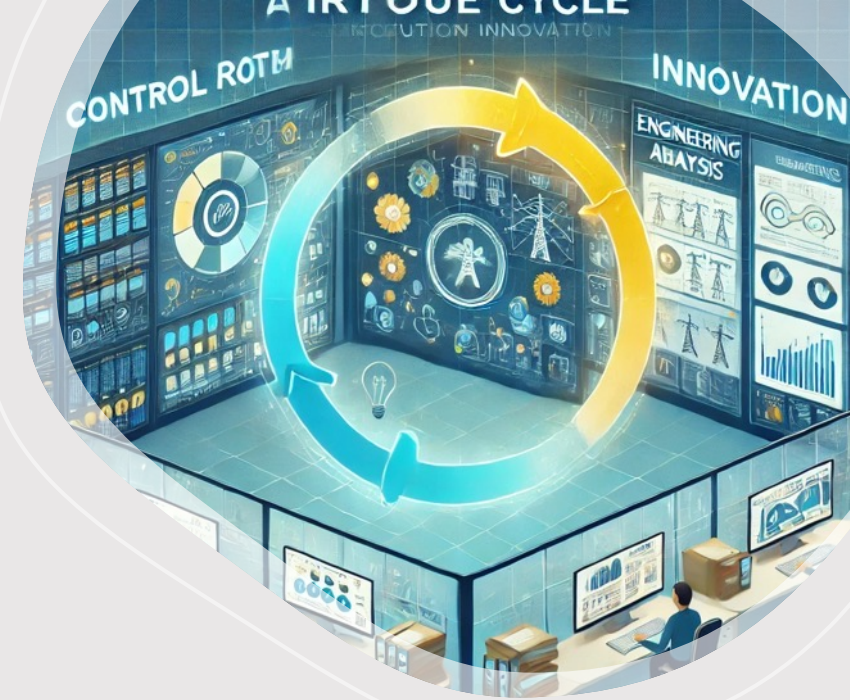


# No remaining technological barriers

- No excuses
- No sensor limitations
- No comms limitations
- No ecosystem limitations







## We Have a Complex Relationship with the Control Room

- Synchrophasors first imaged as modeling/analysis tool
- Capitalizing on 2003 Blackout, investment catalyzed control room focus.
- Intrinsic org dynamics require faster innovation cycle driven by engineering analysis
- Drives virtuous cycle that leads to control room



# Oscillations Are the “Killer App”

- Power Electronics are having their moment
  - Data Center Load
  - FACTS
  - IBRs
- Local oscillations lead to capital inefficiency







# All Time vs Real-Time

- Not about volume
- Not about AI
- Ambient vs Events
- Chronic vs acute health
- Real-time is the Special Relativity to the All-Time General Relativity



The background of the slide is an abstract digital illustration. It features a dense field of small, glowing blue and yellow dots. These dots are connected by thin, vertical and diagonal lines, creating a grid-like or network-like structure. The overall color palette is dominated by deep blues and bright yellows, giving it a high-tech, data-driven appearance.

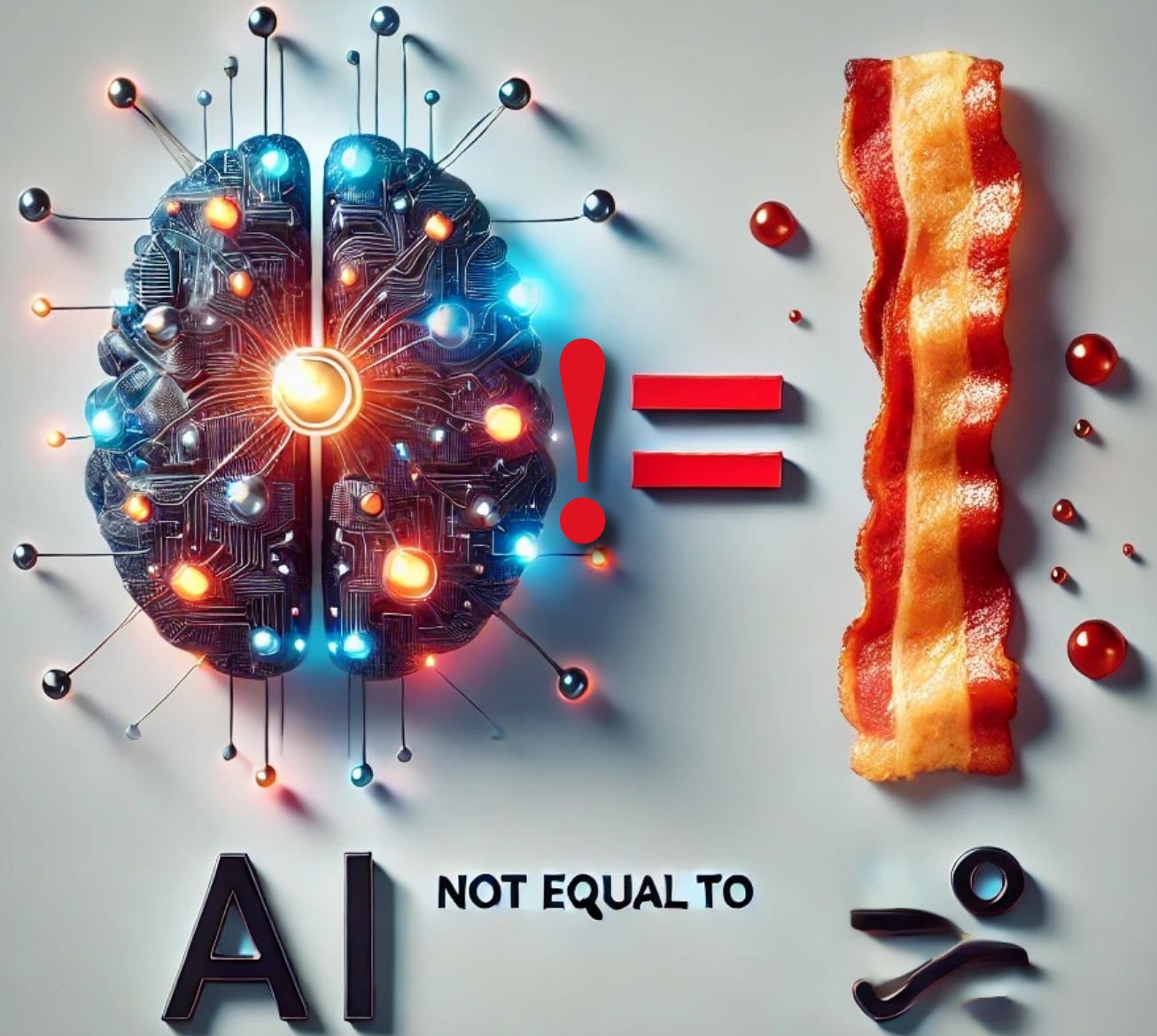
# Waveforms != Synchrophasors

- Its not that hard!
- Comms + Data Platform
- Patterns from PMUs don't apply



# AI != Bacon

- Artificial Intelligence doesn't make everything better
- Don't forget Maxell
- Shiny Object Syndrome
- K.I.S.S.
- First Principles & Fundamentals





THE WORLD IS NOT A ZERO-SUM GAME



# We Can Grow the Pie

- Neither the industry nor this space is a zero-sum game.
- More collaboration between vendors is needed.



# Thank You!

Kevin D. Jones, Ph.D.

