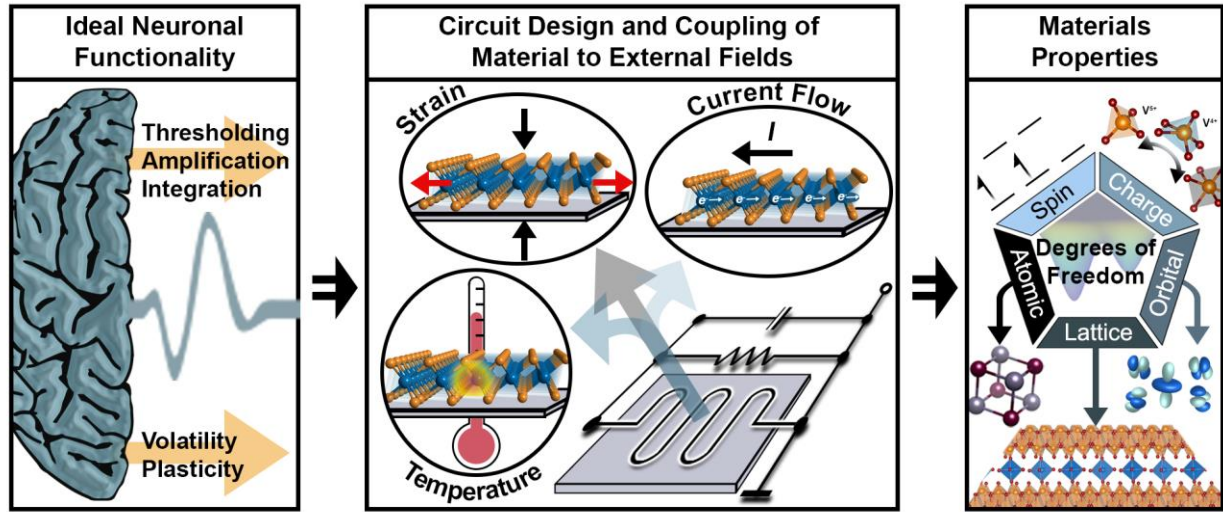


# Reconfigurable Electronic Materials Inspired by Nonlinear Neuron Dynamics (REMIND)

R. Stanley Williams (Texas A&M Engineering Experiment Station); Class: 2022-2026

**MISSION:** To establish foundational scientific knowledge underpinning the function of massively reconfigurable computing architectures that approach fundamental limits of energy efficiency and speed, enabling real-time learning and embedded intelligence emulative of specific neuronal and synaptic functions of the human brain.



[www.remind.engr.tamu.edu](http://www.remind.engr.tamu.edu)

## RESEARCH PLAN

REMIND seeks to *flip the current computing paradigm* by blending *inverse and forward design* and connecting *dynamical material properties and underlying transformations* to *discover and exploit* new materials, mechanisms, and interfaces that are required to emulate specific neuronal and synaptic functions of the human brain. REMIND will uncover fundamental mechanisms and molecular/material building blocks for a new paradigm of brain-inspired computing.



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science



Texas A&M Engineering  
Experiment Station

