# Neuron Assignment Problem Distribution (Shuffled)

## Boys Teams

### Team 1

Members: AADHITHYA S, BHAVESH K, PRADEEPRAJ B, SRIVATHSAN S

* Problem: Create a neuron-like decision model where positive factors (like stress or workload) push toward quitting, while negative/inhibitory factors (like salary or benefits) prevent it. Predict employee attrition based on competing neural logic.

Noisy Sensor Filtering Neuron

### Team 2

Members: KARMUGILAN I, DAKSHNAMORTHY.K, VENKATESH S, HARISH R

* Problem: Simulate a WTA neural network by identifying the dominant subject for each student. Using subject scores, classify each student into their strongest subject — as if only the highest-activated neuron wins and suppresses the rest.

Memory Recall with Interference

### Team 3

Members: TARUNRAJ A, SARATHY V, THEENASH M, PRATHEEB E

* Problem: Simulate how repeated exposure to a topic strengthens a student's learning, similar to synaptic strengthening in neurons. Given marks across multiple attempts in various subjects, model how the “learning weight” increases with each repetition.

Spike Timing & Productivity

### Team 4

Members: HEMESHWARAN.M, ARAVIND RAJ P, AJAY GOVIND V, MUGAESH V

* Problem: Simulate how a neuron's strength diminishes with repeated activation. Using logs of repeated task attempts, model decreasing energy and performance per attempt — and determine the point at which a task is no longer productive.

Winner-Takes-All (WTA) Student Classifier

### Team 5

Members: HEMACHANDRAN.K, BHUVANESH D, PRIYAMADHAN.G.K, ARJUN. D

* Problem: Design a basic neuron that only 'fires' when clean data is received. Using noisy binary sensor input (e.g., motion, temp), implement logic that activates an output only if enough inputs are consistent — mimicking a signal-to-noise filtering neuron.

Task Fatigue Simulator

### Team 6

Members: ANDREW SURJIT RONALD F A, PRABHAKARAN G, VISHAAL S, RAVIKANTH S

* Problem: Model an output filtering system where high emotional 'inhibitory signals' can block the system from acting, similar to inhibitory neurons in the brain. Using emotion-labeled text data, block messages where negative emotions exceed a defined threshold.

Circadian Rhythm & Alertness Prediction

### Team 7

Members: REYASH V, MANIKANDAN, MOHAMMED AASHIQ, SATHIYAN. K

* Problem: Model forgetting due to interference between similar topics, inspired by overlapping neural activity. Given study counts and interference levels for different topics, simulate how recall strength decays as interference increases.

### Team 8

Members: GANESH.I, SUDHARSAN.R, SANGARADAS A, MORDHEESHVARA. B

* Problem: Mimic the brain’s internal clock by predicting a person’s alertness level throughout the day based on sleep history and time. Using a dataset with sleep patterns and timestamps, simulate a sinusoidal 'alertness curve' over a 24-hour period.

Decision Conflict Model (Excitatory vs Inhibitory)

### Team 9

Members: DHAVANESH.R, PRAGADEESWARAN E, MUTHU KRISHNA M

* Problem: Neuron-Inspired Assignment Problem Statements

Synaptic Plasticity Tracker

## Girls Teams

### Team 1

Members: HAFZAFARZANA.H, NITHYA SRI.B, AGALYA. T, SUSHMIDHA.M

* Problem: Create a neuron-like decision model where positive factors (like stress or workload) push toward quitting, while negative/inhibitory factors (like salary or benefits) prevent it. Predict employee attrition based on competing neural logic.

Noisy Sensor Filtering Neuron

### Team 2

Members: INDHUJA S, HARIJA.R, MEENALOSHANI.M, AKSHYA A

* Problem: Simulate a WTA neural network by identifying the dominant subject for each student. Using subject scores, classify each student into their strongest subject — as if only the highest-activated neuron wins and suppresses the rest.

Memory Recall with Interference

### Team 3

Members: SUSHMA SARSWATHI V, CHANDRA ARUL NISHANTHINI, AMIRTHABHANU A, LALITHAMBIGA.S

* Problem: Simulate how repeated exposure to a topic strengthens a student's learning, similar to synaptic strengthening in neurons. Given marks across multiple attempts in various subjects, model how the “learning weight” increases with each repetition.

Spike Timing & Productivity

### Team 4

Members: NITHYA SHRI V, ANNIE MAERLIN H, ANUSHREE N, SREEVARDHINI V

* Problem: Simulate how a neuron's strength diminishes with repeated activation. Using logs of repeated task attempts, model decreasing energy and performance per attempt — and determine the point at which a task is no longer productive.

Winner-Takes-All (WTA) Student Classifier

### Team 5

Members: PRAMILA.D, MOHANA PRIYA K, DHIVYA V, UTHRADEVI. K, Damini

* Problem: Design a basic neuron that only 'fires' when clean data is received. Using noisy binary sensor input (e.g., motion, temp), implement logic that activates an output only if enough inputs are consistent — mimicking a signal-to-noise filtering neuron.

Task Fatigue Simulator

### Team 6

Members: PRIYANKA . H, HARINI.P, SRI AISHWARYA K, SIVARANJANI.M

* Problem: Model an output filtering system where high emotional 'inhibitory signals' can block the system from acting, similar to inhibitory neurons in the brain. Using emotion-labeled text data, block messages where negative emotions exceed a defined threshold.

Circadian Rhythm & Alertness Prediction