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Course:	TALK	USN:	4AL16EC061
Topic:	SIMPLIFYING THE BRAIN	Semester & Section:	8 <sup>th</sup> , B
Github Repository:	Safiya-Courses		


## REPORT




### Why Connectome?


- We don't even know why:
  - There are two cerebral hemispheres?
  - There is a cortex?
  - Why the cerebellum is outside and thalamus inside?

What is the hurry for the Connectome?



An Introduction to Brain Structures






### Parkinson's disease (PD)

Progressive neurodegenerative disorder

Pathology: loss of dopaminergic neurons Substantia nigra pars compacta (SNc)





Cardinal Symptoms:

- Tremor,
- Rigidity,
- Postural abnormalities,
- Bradykinesia.

Motor symptoms in many modalities:


- Reaching movements
- Handwriting
- Eye movements
- Speech
- Posture...





Normal Handwriting

PD handwriting



SAFIYA BANU,  
4ALGEC061  
Report on Talk.

29/05/2020

## Simplifying The Brain.

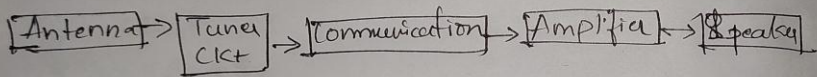
By V. Srinivas Chakravarthy.

- The no. of brain neurons in the brain are more than the no. of stars in milkyway.
- The Brain is the most complex object in Universe.

### Why is it Hype

- Large Projects.
- Descriptive tradition of Biology.

Architecture of Radio.



### → Big data

Data in modern world.

→ Data as the 4th pillar of science.

Neurons come in different shapes.

### Neuromorph.

Human Connectome Project.

### Why Connectome?

2 cerebral hemisphere, there is cortex

→ Big data -- and Hing theory.

### History of Astronomy.

Ptolemaic  
Astronomy

Newtonian  
Astronomy.

Computational Modeling.

$$\boxed{F=ma}$$

Neuroscience is theory weak.

Reductionism

System, Neurons, Molecules

Disproportionate Development

Contemporary Neuroscience.

Basic

Critical.

There is no need to develop simplified models, embodying the right abstraction the key it is done in physics & neuro engineering.

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