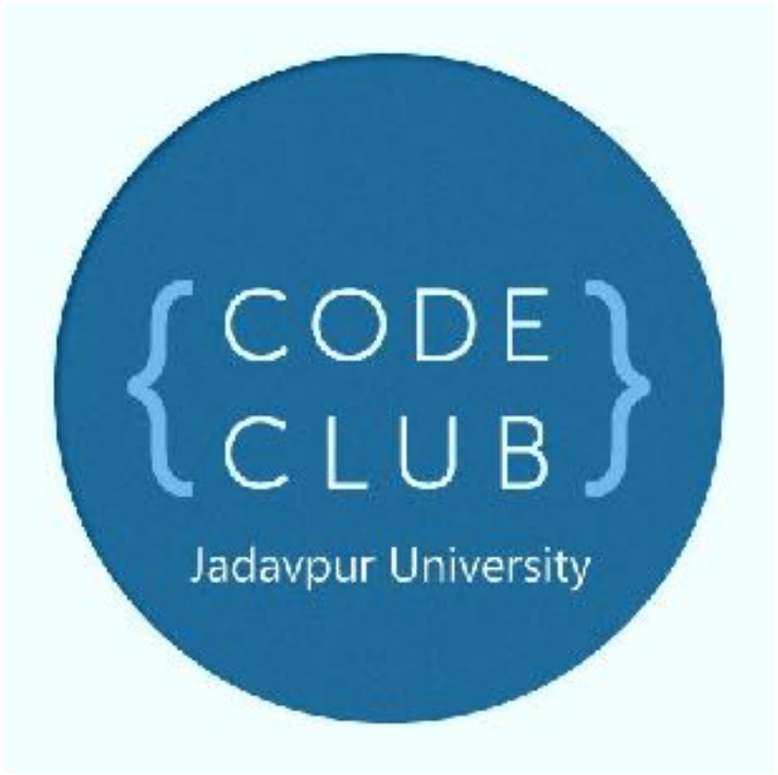


CODECLUB

“ By the coders
For the coders ”

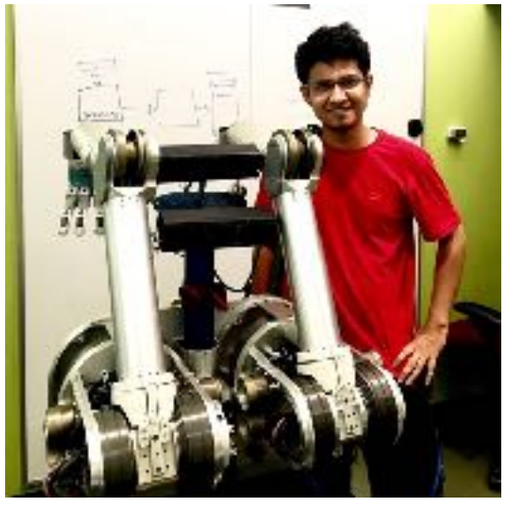
A bit of history

Founded in Early 2014

Digvijay Chandani
(BCSE, 2014)

Angshuman Ghosh
(BCSE, 2016)

Aniruddha Saha
(BCSE, 2016)



Satyaki Chakraborty
(BCSE, 2017)

Since then

- organised workshops on competitive programming
- Prepared teams for ICPC regionals
- Started with only 10 attendees in our first orientation, now we span across multiple dept.s

Since then

- Organised competitions exclusive for JU students
- Tied up with Hackerrank (JU Hackerrank club)
- Tied up with CodeChef (Codechef campus chapter)

HackerRank

CODECHEF
A Directi Educational Initiative

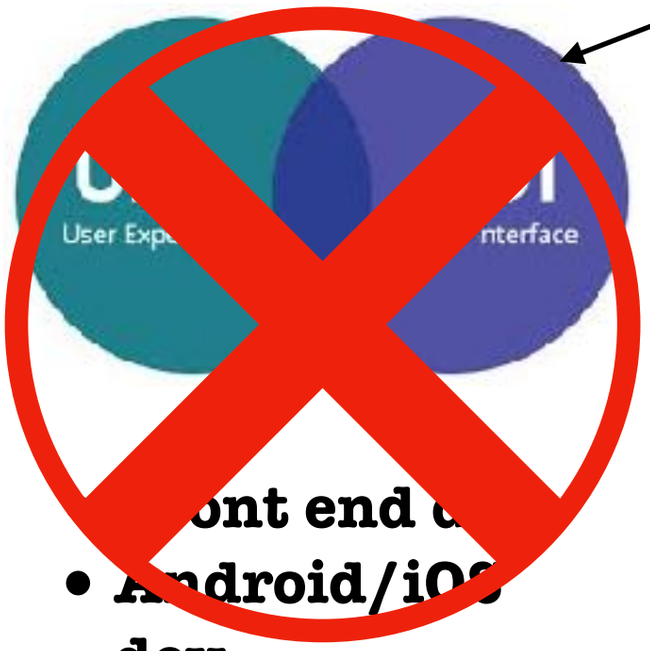
The goal

Goals

- Platform for discussing problems
- Cover areas not in course
- Include students from multiple disciplines

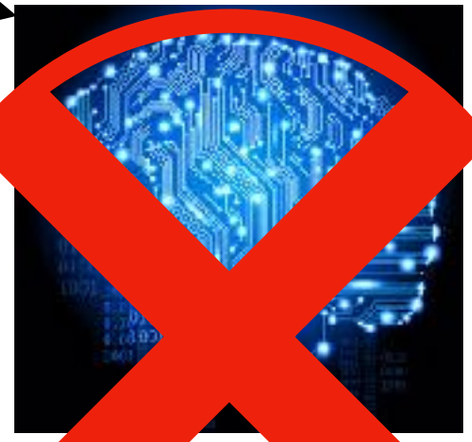
What we cover

Pillars of CS



- **ont end d**
- **Android/iO dev**
- **Cloud dev**

- **Competitive coding**
- **Algorithm dev**
- **Problem solving skills**



- **f driving**
- **Voice recogn ition**
- **Chat bots (allo)**
- **DL/ML/NLP/CV**

Accolades

Digvijay Chandani
Microsoft,
UC San Diego

Orchid Majumder
Amazon Seattle, USA

Angshuman Ghosh
UWaterloo, CA

Afif Ahmed
Google, Singapore

Siddhanth Gupta
Codenation, Dubai

- 3 Google Summer of Code interns
- 10+ ACM ICPC Regional qualifiers
- All regular attendees secured job offers (15+ lpa)
- Top Recruiters: Amazon, Microsoft, Samsung, Google, Adobe, DE Shaw, Goldman Sachs

Things you need to know

Where to start

Online Courses
- Tim Roughgarden (Coursera)
- Stanford CS97SI (slides available)

Blogs
- Topcoder tutorials

Website
- Geeks4geeks

The training arena

Online judges
- Codechef
- Spoj(*)
- Poj
- a2oj(*)
- uVaj(*)
- Hackerrank(*)
- Hackerearth

The championship

ACM International Collegiate Programming Contest

Syllabus

Learn a Language! **C++**

From where?
Tutorials point is more than enough!

Can I use Java or Python?

Time Complexity and Asymptotic Analysis

From where?

Tim Roughgarden is more than enough!

Read divide and Conquer

Math

- Number theory
- Combinatorics
- Computational Geometry

Generic DS

- Linked lists
- Stack/Queues
- Trees
- Segment/ Fenwick trees(*)
- Union find (*)
- Heap/Priority Queue (*)
- C++ STL

Dynamic Programming(*)

- 1D DP
- 2D DP
- 3D DP
- Tree DP
- Interval DP
- Subset/ Bitmask DP

Combinatorial Games

- Zero sum
- Minimax
- Nim
- Nimbers/ Grundy numbers

Bitwise operators(*)

Recursion and backtracking (*)

Graphs (*)

Generic

- DFS
- BFS
- Topological sort(*)
- SCC:Kosaraju(*)
- Karger's mincut
- MST: Prim's(*)
- MST: Kruskal's(*)
- Eulerian cycle/ path

Shortest path(*)

- Flyod Warshall
- Dijkstra
- Bellman Ford

Network flow(*)

- Ford fulkerson
- Bipartite matching
- Min cost max flow

Strings (*)

- String matching (KMP)
- Suffix trie
- Suffix Array

The team

The team

- **Vivek Roy,** BCSE III (Convener)
- **Prof. Sanjoy K. Saha** (Faculty Advisor)

Volunteers

- Rohit Lakhutia, BCSE III
- Kaushal Agarwal, BCSE III
- Aishik Pyne, BCSE III
- Harsh Modi, BCSE III
- Soham Mukherjee, BCSE II
- Aritra Sen, BCSE II
- Dibyadip Chatterjee, ETCE II
- Sayan Goswami, ETCE II
- Arpan Bhowmik, ETCE II

How to reach us

- Fb page (CodeClub JU)
- Whatsapp group


Any questions?

Thank you!

Satyaki Chakraborty