# DELTA FORCE

## Foreword from the Core of '20-'21

It delights me to give this Foreword for Delta Force. Delta Force is a close-knit community of computer enthusiasts who enjoy coding and developing impactful software.

Despite the COVID-19 pandemic, the inductions were organized methodically and proved valuable for the freshers who applied.

The thirst for exploring niche technologies and work on groundbreaking projects spanning domains like Development, Machine Learning, Blockchain seemed on an ever-increasing trend throughout. It was unfortunate, however, that due to the heavy academic load on freshers, we could not impact them even further.

Delta continues to be a club that comprises the most brilliant minds, who excel in whatever they choose through sheer passion and perseverance. I wish the next core the best of luck and hope to see them create a bigger difference in the upcoming academic year.

# INITIATIVES

**Kavalan Arann App**

There are 2 versions of this bilingual app:

*Kavalan Arann*

Kaval Arann is a citizen-centric mobile application for the people of Tiruchirappalli. This app provides features that include tracking the public's requests about lost vehicles and phones, reporting locked houses to the police, integrating all CCTNS and existing services at one place, and immediate contact information.

*Kavalan Arann Police*

This app is the police version of Kaval Arann. It is developed for the police of Tiruchirappalli. It provides features to the police like attendance scheduling and management, locked house management, and collection of public reports apart from tracking the public's requests about lost vehicles and phones, integrating all CCTNS and existing services at one place, and immediate contact information.

**RECAL UAE Chapter App**

Delta Force and Spider created a web portal, an android application, and an iOS application to manage events conducted by the alumni network based in UAE and keep track of the various members of the community.

**Festember, Pragyan and Aaveg Web Operations**

**Regular tech articles to keep NITT readers up to date with current trends in technology**

A total of 7 blog posts were published on a variety of topics.

**Attendance Portal**

A portal built for Faculties to manage the attendance records of the students in their classes. *Currently on hold.*

**Maintenance of NITT Website**

Maintenance of Academic Department Pages.

General bug fixes in Website server regarding storage issues

### Delta Winter of Code: An Open Source initiative

DWoC is a winter-long program with an aim to support and improve the open-source culture of our college.

It served as a platform for young student developers (or even starters) to hone their technical skills by taking up projects of their interests.

The 2020 edition received applications from 375 participants, out of which 33 students were selected for the program, 18 from NIT Trichy, and 15 from outside.

### Scholarship portal

Portal intended to keep students up to date with available scholarships and provide an accessible method of registering for them while also allowing the admin to approve or reject applications.

It was used successfully to manage applications for the Student Aid Fund and the RECAL scholarships.

### Students portal

Portal intended to unify the different campus portals in our college.

Consisted of several portals, including Announcements, Complaints, Surveys, Campus Information, Calendar, and more.

Currently on hold.

### Arrears Portal

Portal to register for arrears in theory and lab courses for B.Tech, M.Tech and PhD Students.

It was successfully used and data from the same was sent to the admin.

### Regular tech articles to keep NITT readers up to date with current trends in technology
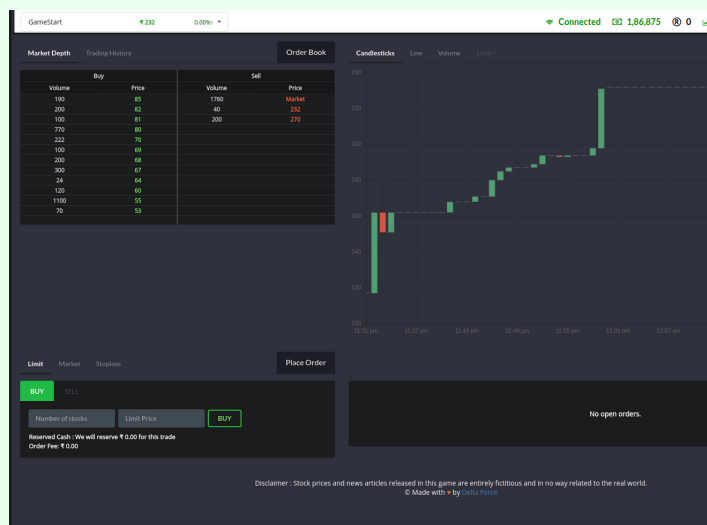
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# EVENTS

## Dalal Street (in association with Pragyan)

A virtual stock exchange simulator where one aims to maximize their profit by trading fictional securities.

The event had 385 registrations and the prize pool was Rs. 20,000



## Delta Scavenger Hunt

Ice breaker event where participants engaged in a battle of wits to solve the brain teasers presented to them.

## Pragyan Premier League (in association with Pragyan)

Pragyan Premier League is an online fantasy cricket league that lets players manage their own team, from buying squads to deciding the line-ups.

The event had 525 registrations and the prize pool was Rs. 18,000

## Inferno (in association with Festember)

Inferno is a month-long series of puzzles aligned with the theme of the fest with a new mini-event unveiling each week.

## Code Golf (in association with Technical Council)

Code Golf is a competitive coding challenge with a twist – the shorter your code, the more points.

## Labyrinth (in association with Pragyan)

Labyrinth is an online treasure hunt event that tests your technical and analytical skills. This event will require immense general knowledge, prowess over the art of decoding clues and a lot of common sense, coupled with a faithful internet connection.

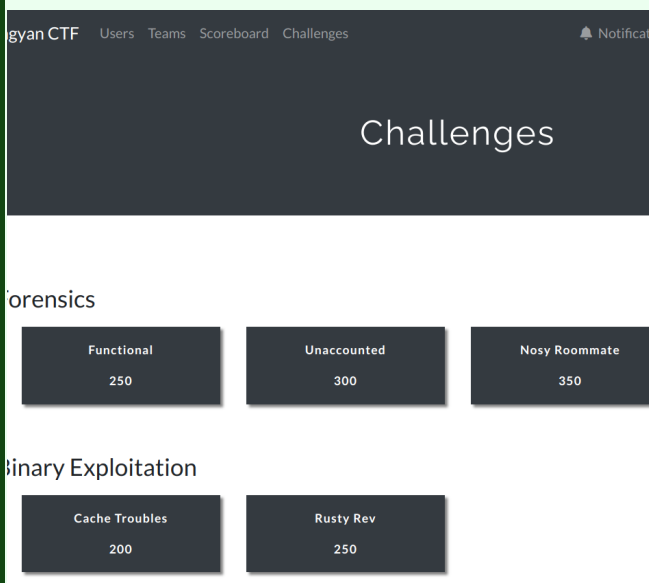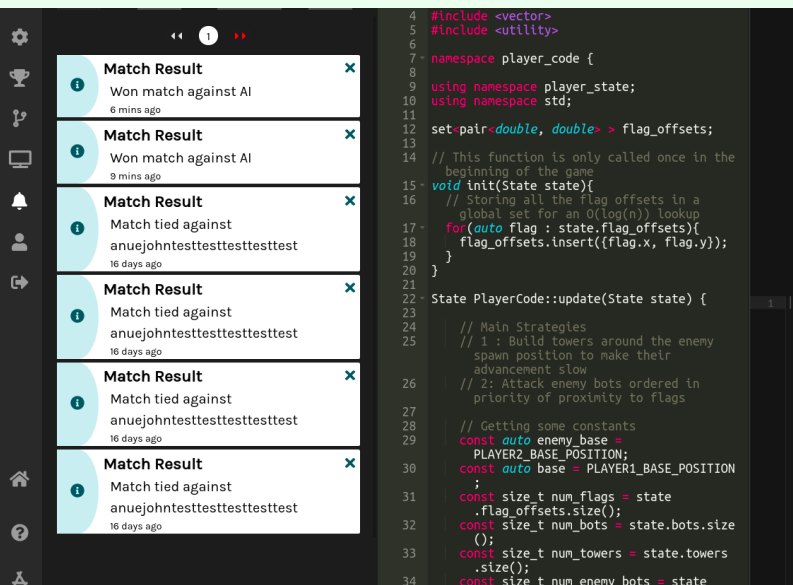The event had 446 registrations and the prize pool was Rs. 20,000.

## Space Labyrinth (in association with Pragyan)

Space Labyrinth is an online treasure hunt event that tests one's technical and analytical skills in astronomy to commemorate World Space Week.



## Capture the Flag (in association with Pragyan)

Capture the Flag (CTF) is a computer security competition. It distills major disciplines of professional computer security work into short, objectively measurable exercises.

The event had 989 registrations and the prize pool was Rs. 20,000.
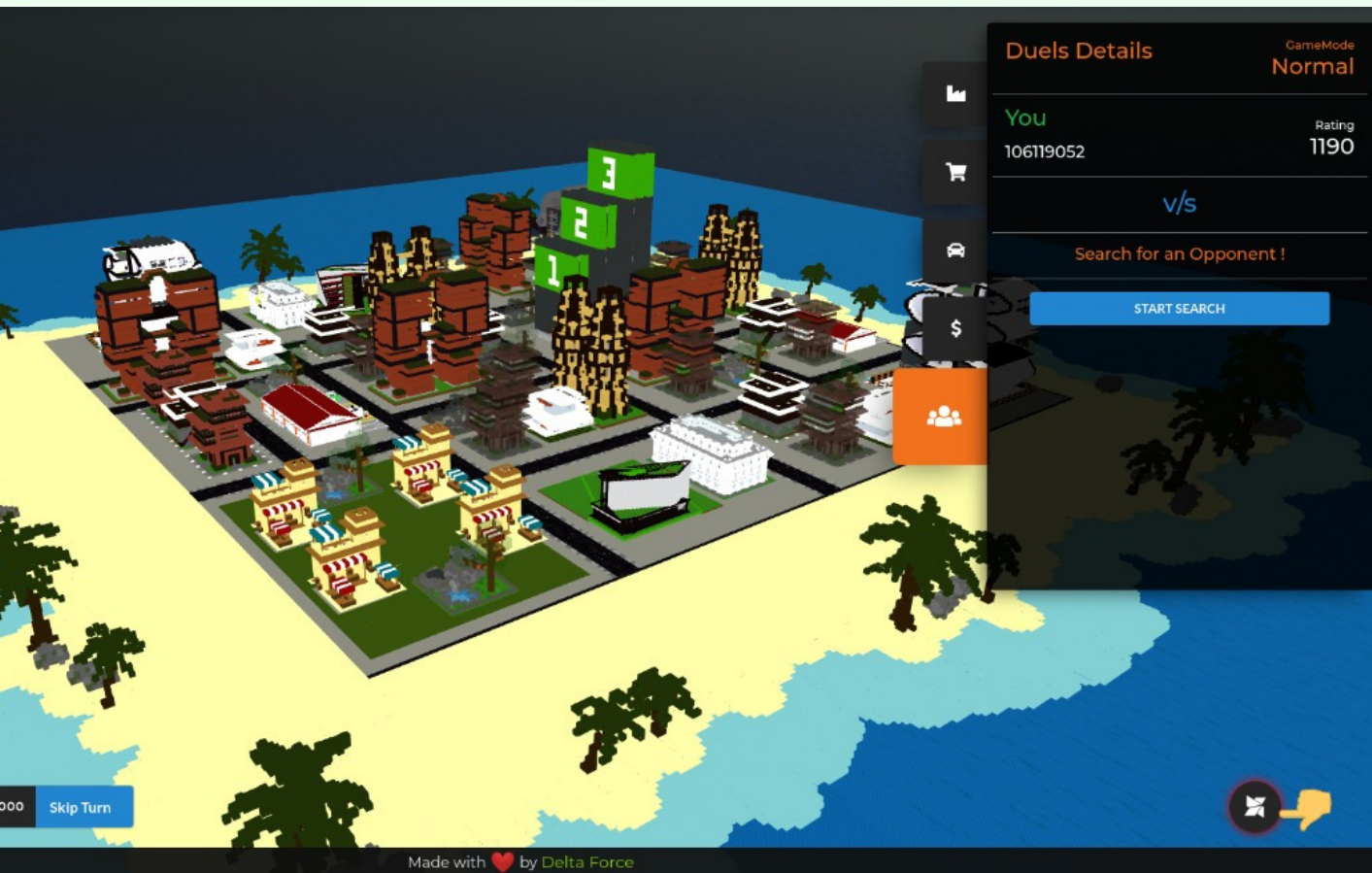
## Codecharacter (in association with Pragyan)

Code Character is an online AI programming match, where one writes C++ code to control troops in a real-time strategy game.

The event had 92 registrations and the prize pool was Rs. 15,000.

## Beer Factory (in association with Pragyan)

Beer Factory is an online strategy-based, single-player game designed to test resource management's art. Participants manage the production and management processes in a factory and attempt to maximize the factory's profit to gain popularity. Each participant competes against a computer-simulated opponent.

The event had 436 registrations and the prize pool was Rs. 18,000.

# COMPETITIONS

### Smart India Hackathon - Winner
Smart India Hackathon is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our daily lives and thus inculcate a culture of product innovation and a mindset of problem-solving.
3 teams from Delta made it to the finals, out of which 1 team won out of 5 million+ students from engineering colleges all over the country.

### ASEAN India Hackathon - Winner
The ASEAN-INDIA Hackathon is an initiative by the Hon'ble Prime Minister of India, Mr. Narendra Modi, involving participants from 10 ASEAN countries (Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Laos, Myanmar, Cambodia, and Vietnam) and India
A member of Delta emerged as the winner in this prestigious hackathon.

### HackVerse 2.0, NITK - Track Winner
A 24-hour nationwide hackathon was conducted by the National Institute of Technology Karnataka, Surathkal (NITK).
A member of Delta emerged as the winner of the track "Let's Connect" in this hackathon.

### Google Summer of Code
3 members of Delta were selected to work with phenomenal open-source organizations for a 2-month duration where at the end of the internship programme, they received a handsome stipend of $1500

### HultPrize Startup Ideation - 2nd Place
The Hult Prize is an annual, year-long competition that crowd-sources ideas from university level students after challenging them to solve a pressing social issue
Delta members emerged 2nd at the institute level with their startup idea: Kwik Kurries.

## Shaastra Programming Contest - 3rd Place

This was the annual competitive programming contest conducted by Shaastra, the annual techno-managerial fest of IIT Madras

## e-yaantra, IIT Bombay - Novel Project

e-Yantra, IIT-Bombay, a platform that has touched thousands of lives over 10+ years through robotics training and lab setup initiatives launched a hackathon to harness young innovators to help devise a response to the challenges of COVID-19.

## Pragyan Hackathon '21 - Winner, Runner Up and Best Tech Stack

Pragyan Hackathon is the annual hackathon conducted by Pragyan, the annual international techno-managerial organisation of NITT.

## GirlScript Summer of Code

2 members of Delta were selected to work with open source organizations for a 2-month duration. GirlScript Summer of Code stands out in that it takes a diversity centric approach towards improving open source culture.

## McAfee ATR CTF - A reputed security contest - Global Top 20

This was a Capture the Flag contest conducted by McAfee's Advanced Threat Research team spanning categories such as Reverse Engineering, Exploitation, Web, Crypto, Mobile and Hardware.

## HeroCTF - Global Top 10

HeroCTF is an international online cybersecurity competition for beginners and intermediates that takes place twice a year.

## Esolang Contest, Shaastra '21 - Winner

Shaastra is the annual techno-managerial fest of IIT Madras Esolang Contest was a battle of solving programming problems using esoteric languages, a set of lesser-known languages.

## Hack This Fall - QuikNode Track Winner

**Google HashCode '21**

Hash Code is a team programming competition organized by Google for students and professionals around the world, which is conducted in various stages. Participants work on real-world engineering problems.

**Safer India Hackathon '21**

This hackathon was launched by the Indian Road Safety Campaign and Ministry of Road Transport and Highways during National Road Safety Month to invite unique innovations that have the potential to change the scenario of road safety in India.

**Shaastra CTF - 6th Place**

This was the annual Capture the Flag contest targeting cybersecurity enthusiasts conducted by Shaastra, the annual techno-managerial fest of IIT Madras

**Shaastra Atlassian Hackathon - Finalist**

This was a hackathon themed "Work From Anywhere" conducted by Shaastra, the annual techno-managerial fest of IIT Madras. Ideas to build various systems/applications that could help manage different aspects of remote working/schooling/college were invited.

**InOut Hackathon**

**Site Developer, Tech Fest, IIT Bombay**

**Devfolio Etherpunk '21 - Superfluid and 1inch bounty**

EtherPunk is a global online Ethereum hackathon, where participants collaborate with industry experts and companies to innovate and build decentralized applications with the potential of mass adoption.

**Android Developers Dev Challenge**
4-week challenge conducted by Google, aimed at helping developers learn about Jetpack Compose, Android's modern toolkit for building native UI, which had 3 members taking part.

**MLH Hackathon**

**Hackon2.0**– **Best GraphQL project**
HackOn is a global digital hackathon focused on fostering innovation while raising awareness on mental health and encouraging diversity and inclusion.

**Uber hackTag**
Programming contest and hackathon conducted by Uber

**2021 Solution Challenge**
The 2021 Solution Challenge mission was conducted by Google and the problem statement was to solve for one or more of the United Nations 17 Sustainable Development Goals using Google technology.

# CAMPUS DEVELOPMENT

- RECAL UAE Chapter App
- Festember, Pragyan and Aaveg Web Operations
- Delta Winter of Code: *An Open Source initiative*
- Maintenance of NITT Website
- Attendance Portal
- Scholarship portal
- Students portal
- Arrears Portal

# COLLABORATION

- RECAL UAE Chapter App
- Kavalan Arann App