

Team - RangersZ

(VJTI MUMBAI)

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Mentor - Dr. Faruk Kazi

Shared Digital Identity Verification

Problem / Current Situation : Students have multiple email addresses and often uses different private emails to register for events making it hard to track.

Solution Needed : A smart solution to unify the digital identity for better attendance tracking.

Why Unique Digital Identity is Needed ?



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1. Multiple Registrations by same person makes it difficult for event manager to predict turn up rate, make logistics and other arrangements (food, stay, venue capacity).
 2. Bulk registrations using autonomous bots and selling tickets in secondary / inflated prices
 3. Voting type events – People give multiple email ids to bias the winning probability.
 4. Security concerns – Paris attack in Ariana concert (There is no way to track identity of people attending the event)

Stakeholder Interaction and Survey for Problem Formulation

- Online – NTU : Approx 34000 students , 100 different student clubs organizing various events having participants of various Nationalities
- Offline – IIT Bombay Techfest and Mood Indigo Dean Student Affairs , Techfest(2018) around 40k participants from all over the world



Novelty - Current Practices and their Limitations

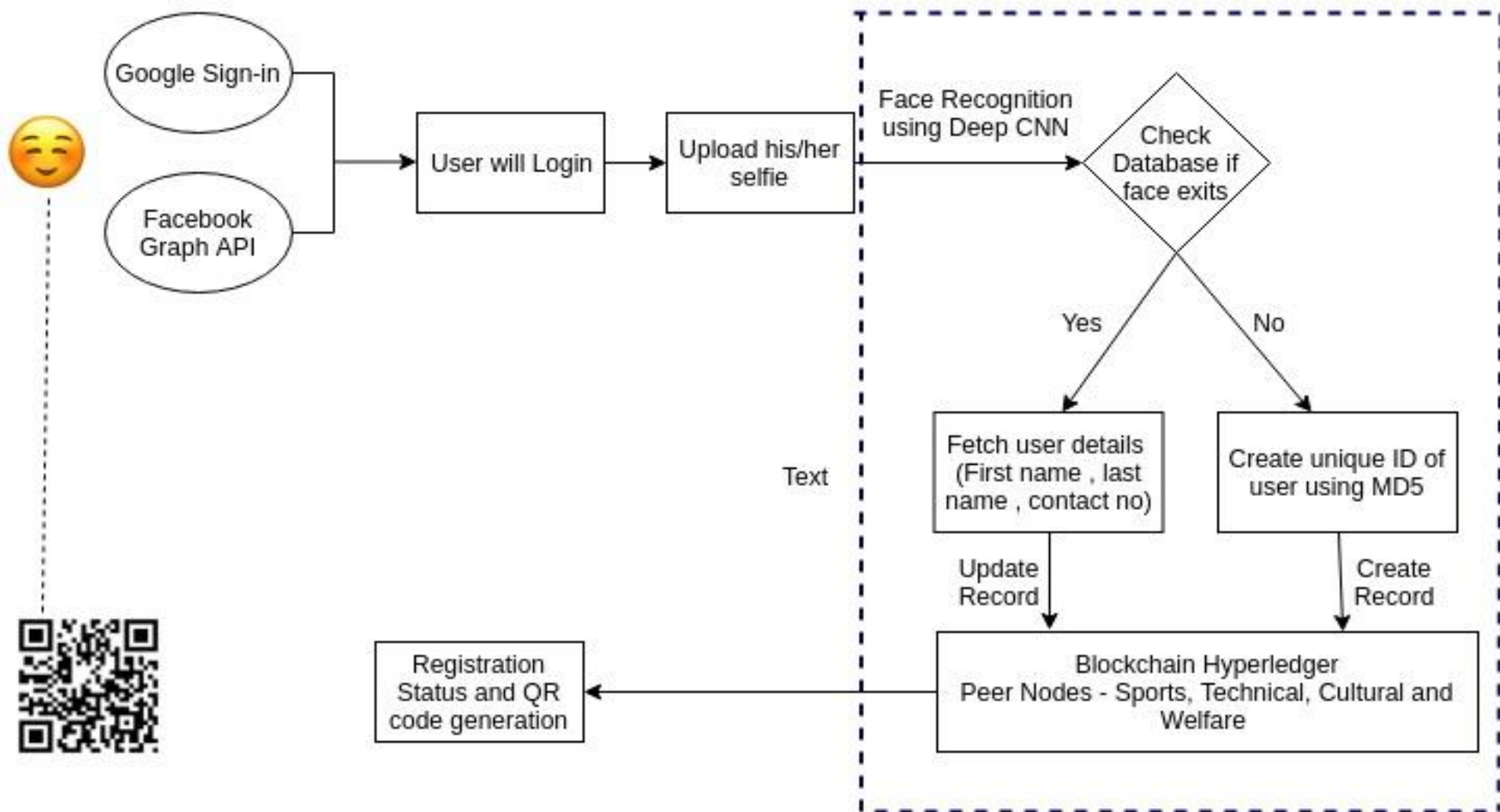
1. IP/MAC based solutions restrictions – students can register using different devices at lab, home etc. Any other biometric like fingerprint / iris is difficult to acquire, commonly
2. A common practice is using college registration ID of the student which restricts the inter-collegiate events and participation
3. To verify the identities of the individuals some event managers ask for personal government identification numbers which many individuals refuse to share

Our Solution

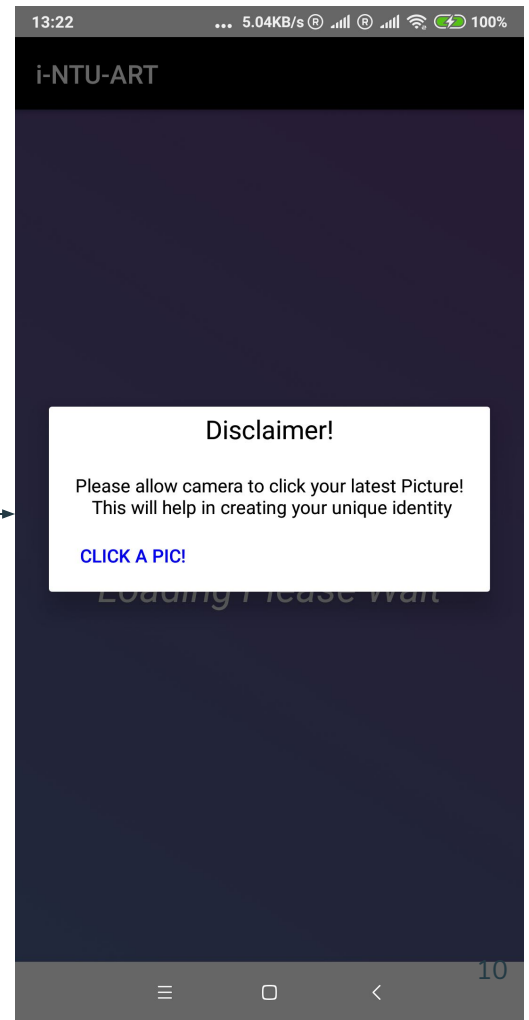
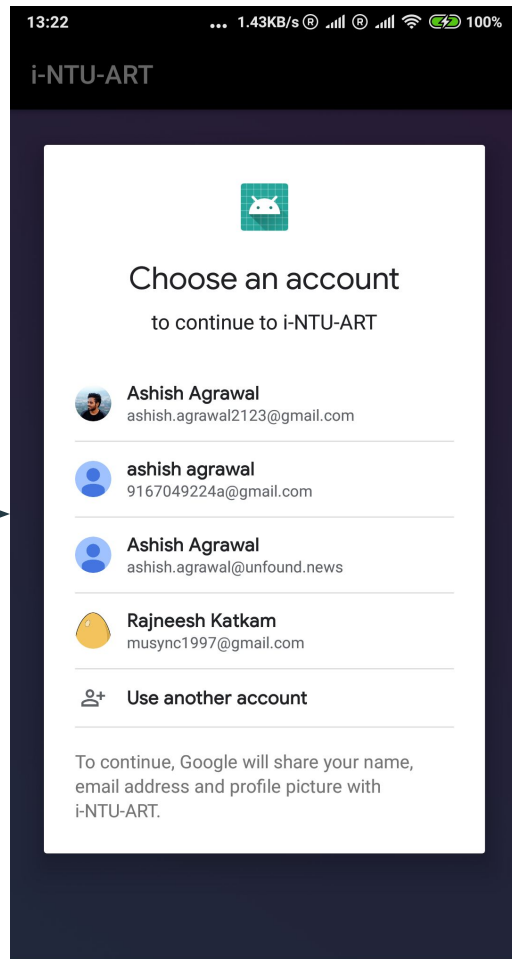
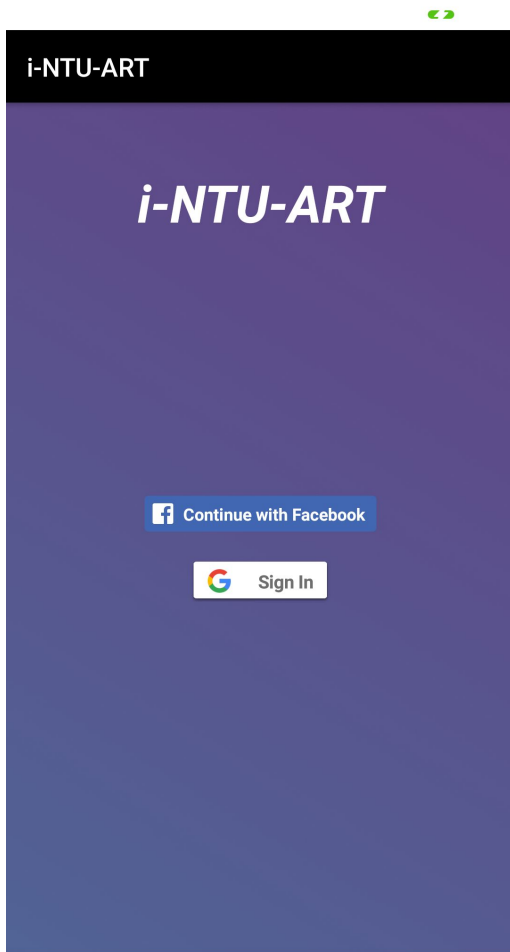
i-NTU-ART

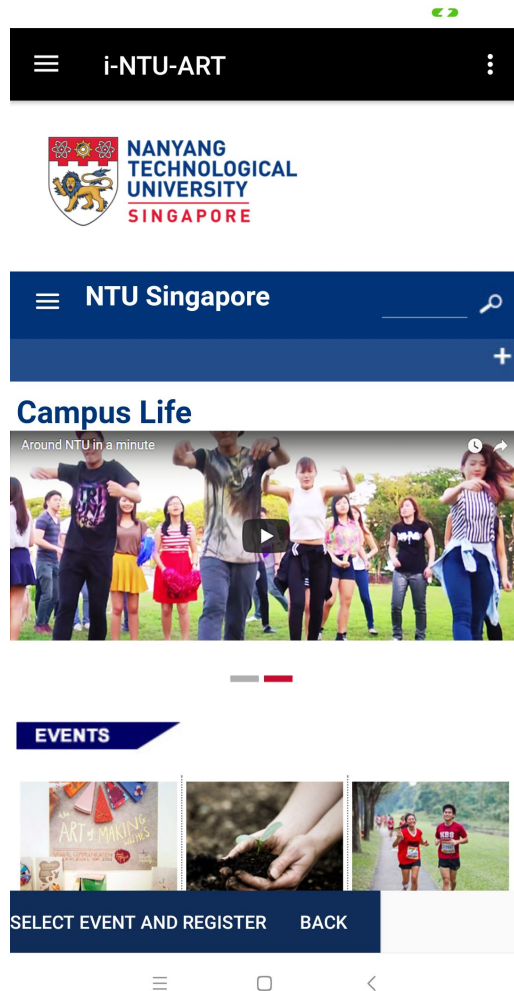
(Identity Based
Attendance and
Registration Tracking)

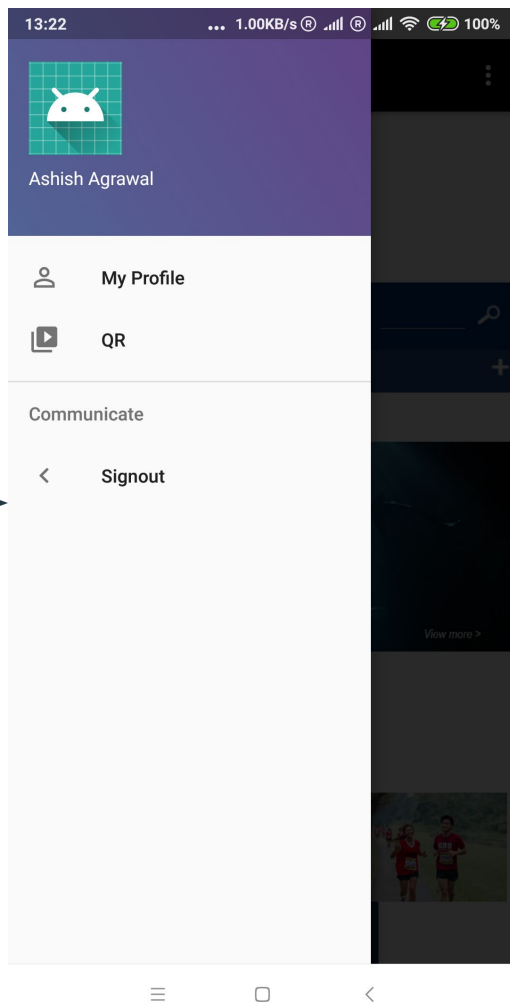




User Application







Dashboard of Event Manager

ADMIN DESK



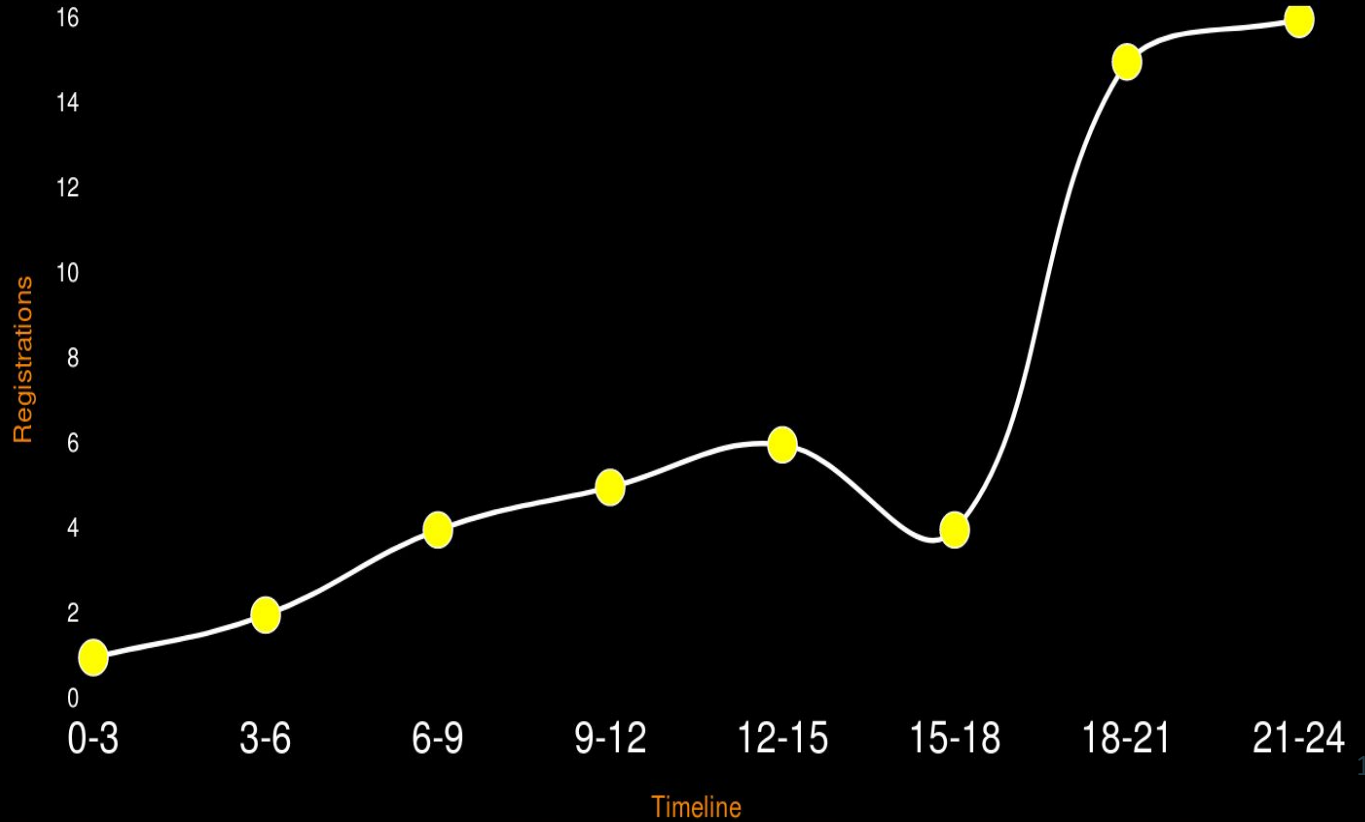
All Users



Analytics

Healthy Campus@NTU

Total Registrations : 53 / 100





ALL USERS

UserID	User's Name	More
1	siddhesh gangan	
4b5ec61a62e185aaaecd8d342af32700	Rajneesh Katkam	
a774bc0b79da87eda3aeddd2e2fd6800	Ashish Agrawal	



All Users



Analytics

Ashish Agrawal

f93069199105afced06f8559526c7392

9167049224

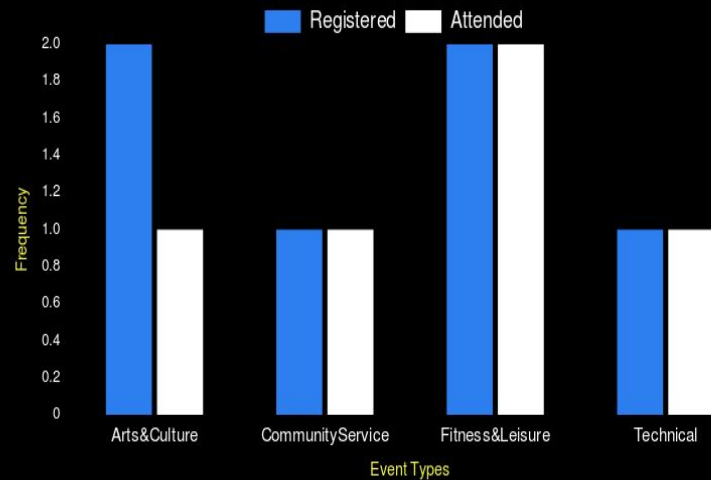
ashish.agrawal2123@gmail.com

Fly-Your-Ideal-Competition

[View User History](#)

Preferences

Ashish Agrawal



Attendance Record

Events Registered

6

Events Attended

5

Blockchain : Digital Identity into Trusted Identity

1. Decentralized approach to identity management
2. Our idea is motivated by IBM Blockchain for Digital Identity Management
3. Tracing for security incidence is possible since information is immutable
4. We are using a permissioned network instead of public blockchain
(Academic Constituent Club, Cultural Activities Club, Sports Club, Welfare Services Club)
5. Since data is permanently recorded it is also useful for college alumni to attend events even after their graduation



Business Model



1. The solution is scalable and can provide end to end event management including event registration , logistic and resource management with pre and post event analytics to handle big events and concerts.

2. Published by MarketsandMarkets™, the market size for event management software is expected to grow from USD 6.10 billion in 2018 to USD 10.57 billion by 2023, at a Compound Annual Growth Rate (CAGR) of 11.6% during the forecast period.

3. Commercially available event registration softwares like **Bizzabo** , **Eventzilla** etc do not have the feature of providing a digital identity to registered persons and identifying multiple registrations of the same person.



Conclusions

1. Ready to deploy solution for Event Registration and attendance tracking based on Shared Digital Identity .
2. User friendly mobile app and manager friendly web interface integrated with NTU Events Listing
3. Provides pre and post event analytics
4. Personalized invites and incentives based on event attendance history of the users
5. Deep Learning CNN based face recognition for increased accuracy
6. Digital Identity using MD5 hashing algorithm and QR Code
7. Shared Trusted Identity using Blockchain platform
8. Possibility of Scaling Up the solution for commercially handling Big Events

Thank You !!