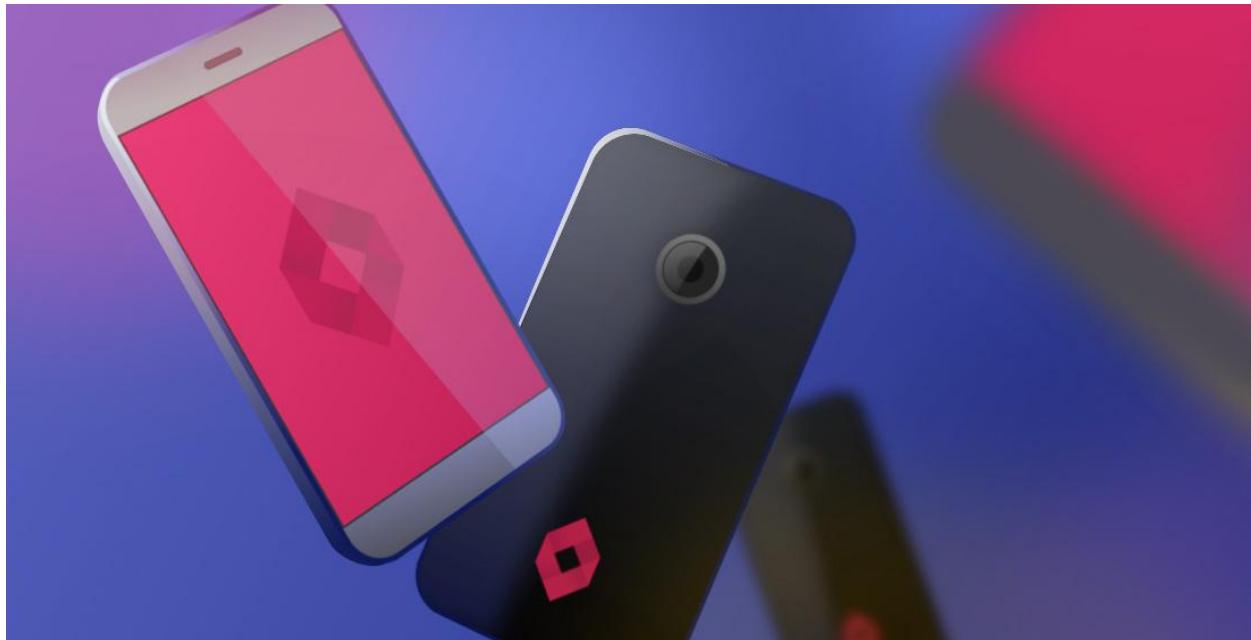


Codex Newsletter

APRIL 15, 2021



FROM OUR MEMBERS :

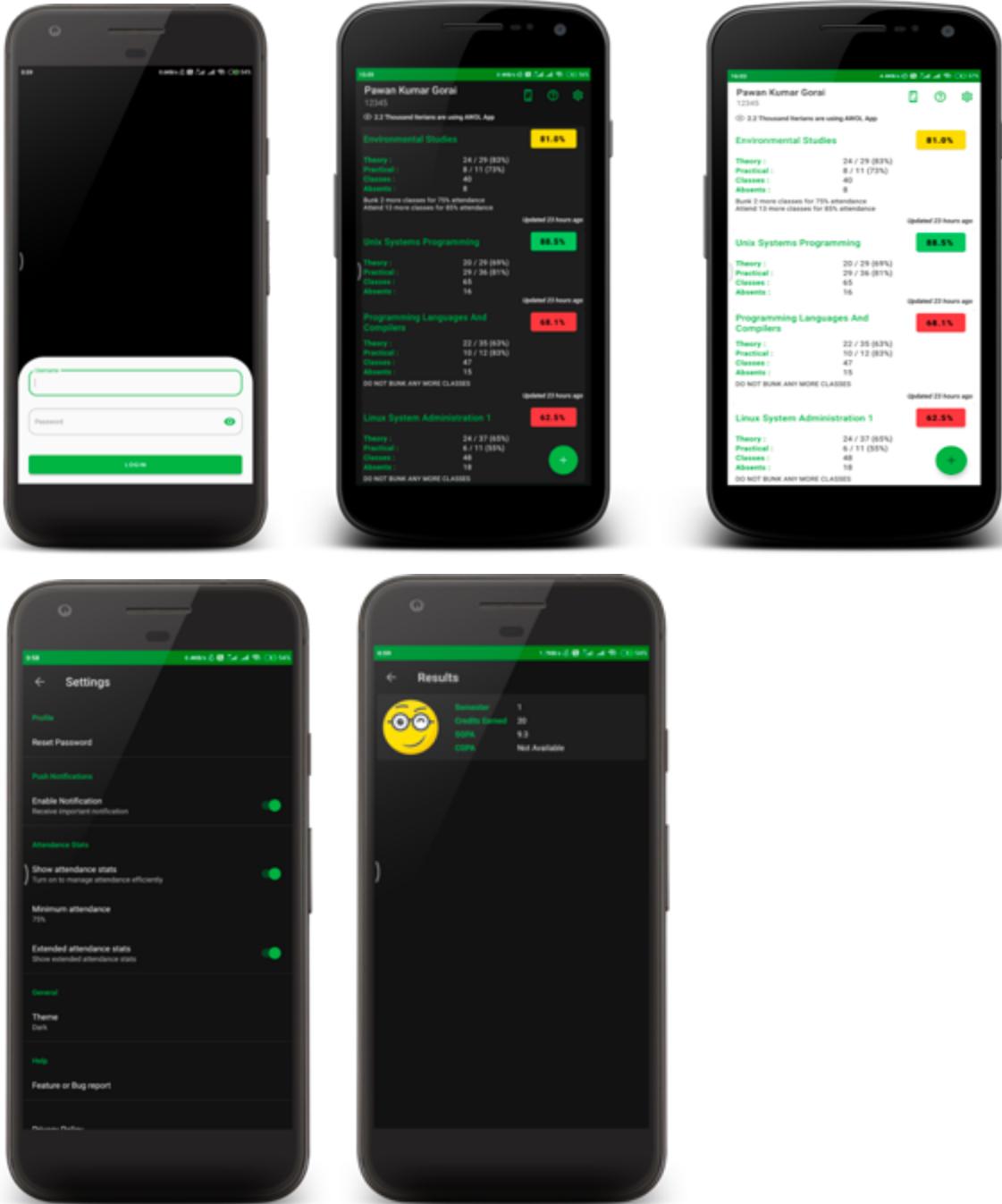
AWOL :

Pawan Kumar Gorai (2017-21)

AWOL - Attendance Without Leave is an app which shows all the relevant academic details for ITER students. AWOL lets students to check their attendance, semester results as well as college moodle website. AWOL also helps students to manage their class bunks and even alert students not to bunk more classes if attendance of the student goes down. AWOL was developed by CODEX members, Java was used for developing the app and it helps us to manage our college

attendance more conveniently. At last if you are a student of ITER then you must try AWOL, you will definitely love it.

Download AWOL from <https://github.com/codex-iter/AWOL>



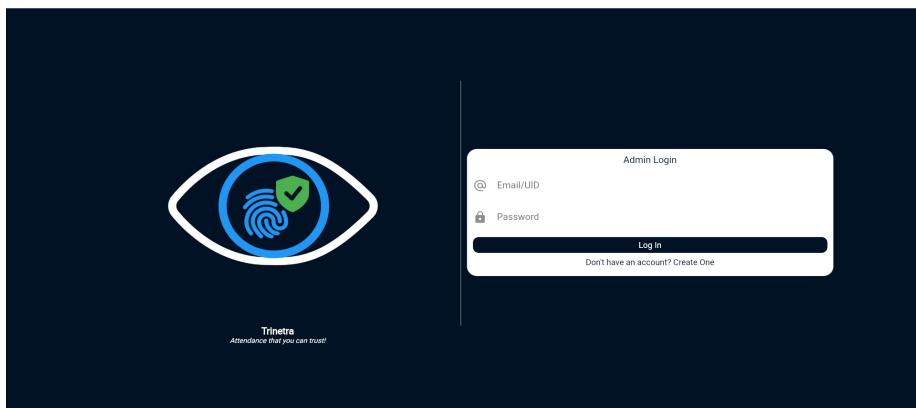
Trinatra :

Adarsh Padhi(2018-22), ASVK Vinayak(2019-23), Ayush Kejariwal(2019-23), Gyanaranjan Sahoo(2019-23)

Recently Utkal Hacks 3.0 was organized and Team TechSpace participated and tried to solve the problem statement in a span of 15 days. We all know that biometric systems in schools, malls, hospitals are now a big factor to concern during this COVID Pandemic as it involves direct contact tracing. So team TechSpace have come forward with an innovative approach of E biometric attendance where users can give biometric attendance from the Trinatra app which makes it 100% contactless service. Trinatra app also randomly sends notification for 3-4 times within the office hours and users have to give his/her attendance within 10 minutes and the location details of the user will be shared so that administrators can check if the user is present in the office or roaming outside after giving attendance. Team has also made an admin panel website for the administrators so that they can monitor the employees more conveniently.

So basically the Trinatra app covers all the loopholes of the present biometric system.



The Trinetra Admin Panel interface. The left sidebar is purple and contains the "Trinetra Admin Panel" title, a "Data" section with a circular icon, a "View/Edit Admin Map" link, and an "Add Employee" button. The main content area has a white background and displays a table of employee data. The table columns are: Avatar, Name, ID, Phone, Attendance, Present/Total, and Current Logs. The data rows are:

Avatar	Name	ID	Phone	Attendance	Present/Total	Current Logs
	Adarsh Padhi	XYZ184	9778125091	<div style="width: 100%;">100.0</div>	3/3	[x]
	Lelouch	ABC456	1234567890	<div style="width: 25%;">25.0</div>	1/4	[x]
	Ayush Kejriwal	ABC111	7975735215	<div style="width: 25%;">25.0</div>	1/4	[✓]
	VINAYAK	ABC666	9635563220	<div style="width: 10%;">10.0</div>	1/2	[x]

Video-GeoTag :

Gyana Sahoo(2019-23), Pawan Kumar Gorai(2017-21), Parag Bhattacharjee(2017-21), Sweeta Snigdha Sahoo(2018-22)

In Feb 2020 ITER, SOA(deemed to be University) conducted Hackerwars 2.0 a 24 hrs Hackathon in which this team participated. This Hackerwars 2.0 was a screening round for selection of projects for Smart India Hackathon 2020 in which top teams will be selected.

They tried to solve the SIH problem statement(NM380).

During this hackathon they tried to make a mobile application in which we can record and play geotagged videos. Whenever their app is used to record videos, the coordinates (latitude and longitude) after every 10 seconds data are written to a kml file, which will later be written to metadata of the recorded media file as base-64 encoding. Once the recording is completed, the coordinates from the meta data are decoded and fetched to the cache memory and is parsed using google map API. There will be a split screen which shows the recorded videos in the upper part while the synchronised map tracking will be shown in the lower part. Also their app will run on both android and IOS platforms.

They completed the app during this hackathon and are constantly enhancing the app with multiple new features.

WallGen

Subrajit Prusty (2016-20)

Wallgen is a project which generates high quality poly wallpapers. It also lets users choose their shape and colors, and generates beautiful poly wallpapers. This project is made in python, and it comes in the form of a website as well. Everyone should try out wallgen as it generates beautiful polygonal wallpapers.

LinkC

Madhaba Patra(2018-22), Pritam Kar (2018-22)

LinkC is a website which allows users to store their important websites, social media handles, etc. in one place. LinkC basically links all your important details into one place and allows you to share with your friends. NodeJs was used while making this project and now LinkC is hosted on Heroku.

Group TCP Messenger

Rohan Verma and Sonu Kumar Sharma (2019-23)

Group TCP Messenger is a chatting application which can be used to communicate over a shared network. Both Sonu and Rohan have worked hard for this project and implemented this project through socket programming in Java. They have also won the 1st prize for demonstrating this project in ICICC 2019 which was held at ITER, SOA.



IMPORTANT CODING EVENTS :

Code Jam to I/O (April 17 2021, 14:00 UTC)

<https://codingcompetitions.withgoogle.com/codejamio>

Registration for Code Jam to I/O for **Women** 2021 is open! Code Jam to I/O for Women is one way that Google brings women (students and professionals) from around the globe together, working to solve tough algorithmic challenges in a 2.5 hour, single-round coding competition. The top 150 on the scoreboard will receive a ticket and a stipend to participate in virtual Google I/O.

LATEST TECH NEWS:

Sony patents AI that adjusts gameplay difficulty when you're struggling .

Sony is investing on a new AI feature which can be used to tweak the difficulty levels of the games based on the behavior of the player.The Japanese tech titan published a paper describing a machine learning system that automatically adjusts difficulty levels of the game when players are struggling.The ML model mentioned above predicts the new behavior of the players and makes it easier to win the game.The paper also suggests we could analyze the skills of expert gamer and give them rewards like some kind of game currency.

[Read full article here.](#)

Scientists Invent a Machine That Generates Mathematics We've Never Seen Before.

Srinivasa Ramanujan, an Indian Mathematician who is well renowned for his ability to devise new mathematical conjectures. Most of these conjectures turned out to be well renowned theorems. There are very few people in the world with such capabilities.The researchers from Technion – Israel Institute of Technology have created a system called Ramanujan Machine which could generate conjectures around pie, catlan's and euler's constant.The mathematical formulas formed using fundamental constants are very rarely discovered.This process could speed up using the Ramanujan Machine.

[Read full article here](#)

New research could help lay the groundwork for future quantum communication networks and large-scale quantum computers.

New Army-funded research could help lay the groundwork for future quantum communication networks and large-scale quantum computers.Researchers sent entangled qubit states through a communication cable linking one quantum network node to a second node.Scientists at the Pritzker School of Molecular Engineering at the University of Chicago, funded and managed by the U.S. Army Combat Capability Development, known as DEVCOM, Army Research Laboratory's Center for Distributed Quantum Information, also amplified an entangled state via the same cable first by using

the cable to entangle two qubits in each of two nodes, then entangling these qubits further with other qubits in the nodes.

[Read full article here](#)

Microsoft announces its own LTS build of OpenJDK

Microsoft has announced the preview of its own build of OpenJDK, a free and open-source implementation of the Java SE platform. The Microsoft Build of OpenJDK is a long-term support (LTS) distribution that includes binaries for Java 11, based on OpenJDK 11.0.10+9, on x64 server and desktop environments on macOS, Linux, and Windows.

[Read full article here](#)

Researchers Levitated a Small Tray Using Nothing but Light

The task of levitating a small tray using just Light seems to be impractical, but is made possible by a group of people at University of Pennsylvania. They used the principle of Light-induced flow, or photophoresis. Here, due to this principle the specially coated Mylar plates would levitate solely by the power of light. The energy from the LEDs heats up the Mylar's specially-coated surface under the plate. The propelling of the plates occurs due to energizing of air particles. The researchers claim that they could make this technology feasible to carry sensors upto unexplored mesosphere upto 50 miles overhead.

[Read full article here](#)