

# பொங்கல் விழா



## Inside This Issue.....

- 🎯 Pongal Celebrations
- 🎯 Meetings & Discussions
- 🎯 Know About "Beacon"

**KiTE**  
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**KGISL** Institute of Technology

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# KiTE Explorer

## A Weekly E- Magazine

Jan 2021 | Vol 1 | Issue 3

### Index

<b>1</b>	<b>Pongal Fest</b>	<b>1-5</b>
<b>2</b>	<b>S &amp; H - Team Eshikhya</b>	<b>5</b>
<b>3</b>	<b>Meetings &amp; Discussions</b>	<b>6-7</b>
<b>4</b>	<b>Entrepreneur Development Cell</b>	<b>7</b>
<b>5</b>	<b>Workshop &amp; Webinar</b>	<b>7-8</b>
<b>6</b>	<b>Department Activities</b>	<b>8-9</b>
<b>7</b>	<b>Placement</b>	<b>9</b>
<b>8</b>	<b>Faculty Participation</b>	<b>9-14</b>
<b>9</b>	<b>Reviewer in Journal</b>	<b>14</b>
<b>10</b>	<b>Student's Corner</b>	<b>15</b>
<b>11</b>	<b>Info Corner</b>	<b>15-17</b>

#### Editor-in-Chief

Dr.V.Vijaya Chamundeeswari, Principal, KiTE &  
Dr.S.Suresh Kumar, Vice Principal, KiTE

#### Co- Editor

Dr.J.Rejina Parvin, Asso. Prof, ECE

#### Editorial Team

SSA Team & Ms. Kanchana Menon- Digital Marketing



## Pongal Fest

ECE



**KGISL INSTITUTE OF TECHNOLOGY**  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
**CORDIALLY INVITES YOU FOR THE PONGAL CELEBRATION 2021**

**PONGAL 2021**

**HAPPY Pongal**

**ON 11.01.2021**  
**10AM - 1 PM**

ONLINE EVENTS	LIVE EVENTS
• DANCE	• POETRY
• SINGING	• RANGOLI
• GUESS THE MOVIE	• MEHANDI
• SONG FINDING	• CREATIVE GARLAND
• PONGAL MODELS	• COIN HUNT
• RANGOLI	• MOUTSTACHE MANIA
	• PLACE THE BINDI
	• YOU MIME, I DRAW

**CONVENOR**  
DR S SURESH KUMAR,  
PROF & HEAD- ECE

**COORDINATORS**  
DR.JAIKUMAR.R  
MS.LEENA.B

A woman in a red sari is standing next to a Pongal pot and a palm tree. The background is yellow with green leaves at the top.

Dr.R.Jaikumar and Mrs. B. Leena, Department of ECE organized 'Pongal Celebration' on 11.01.2021. Both online events as well as Live events were conducted.







CSE



Head of the Department along with faculty members and students of Department of Computer Science & Engineering celebrated Pongal 2021. The celebration was filled with lots of events like Poster Designing, Musical Chair, Catch the Vada, Connections, Tamizhi, Uyaram Thodu & Tug of war on 12.01.2021. Students eagerly participated in all the events and had lots of fun.









The Department of Information Technology celebrated the harvest festival "Pongal" organized by Ms. Sruthi Mol P, Assistant Professor. It was celebrated with a great enthusiasm by thanking God for agricultural abundance. The celebration included Pongal dishes, Rangoli decorations, Events, and Prayers.

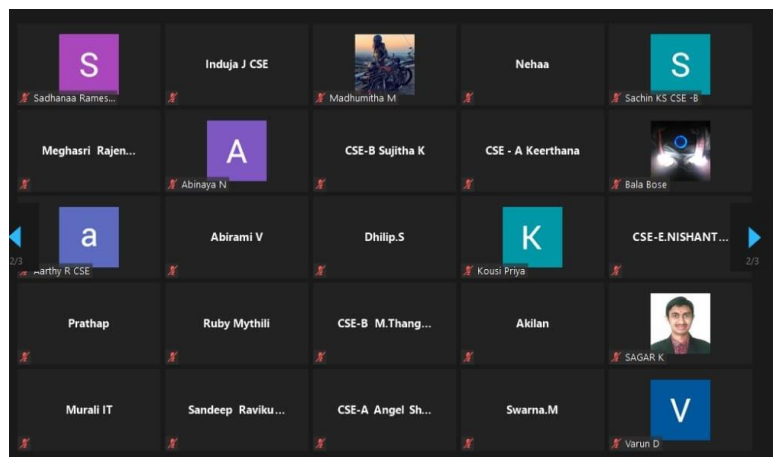




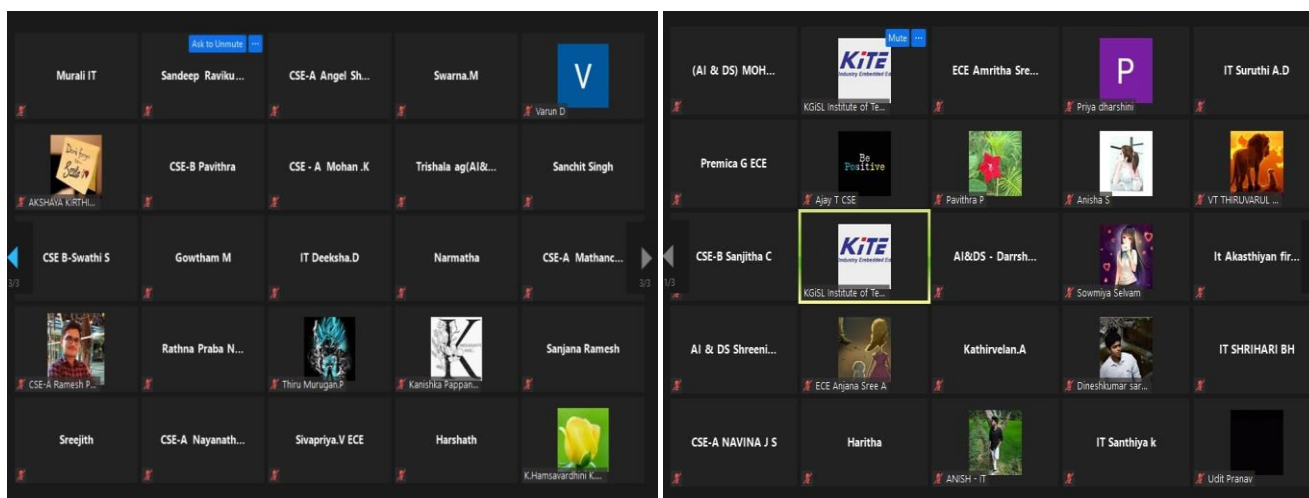


## S & H - Team Eshikhya

On 11.01.2021, **Team Eshikhya** conducted a zoom meeting for the 1st year students. Department of Science & Humanities provided the students with basic instructions on how to attend workshops, cleared their doubts and gave suggestions to them.







## Meetings & Discussions

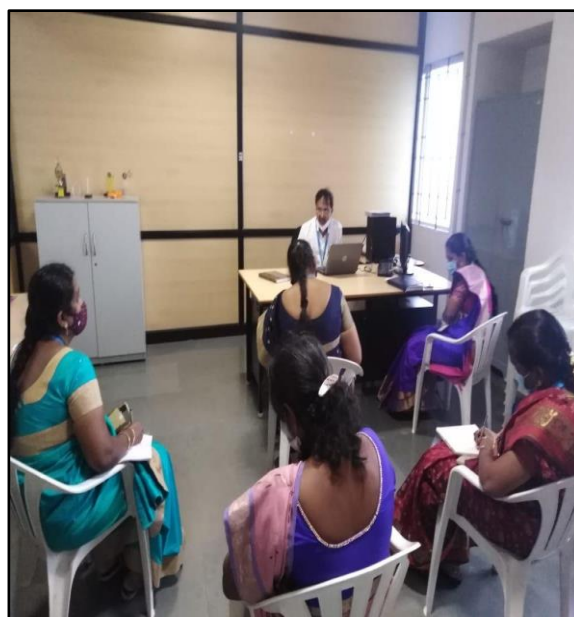
Mech



**Department Faculty Meeting** was conducted by the Head of the Department, Prof. C. Narayanaswamy on 11.01.2021 at 3.30 p.m. for discussing the various activities such as Review of previously held meeting on 04.01.2021, E-magazine (KiTE Explorer) for the week 10.01.2021 to 16.01.2021, Faculty Personal File Update, Lab Maintenance Report for January - 2021, MOU Activities, AQIS Proposal, Update of Quality Objectives, Activity Status Report Update, Admission Related Activities, DRM Minutes, Placement Oriented Program, TOYCATHON - 2021 and Other Academic Activities.

ECE

ECE Department meeting was held on **11.01.2021 at 3.45 p.m.** In the meeting, College - Anna University Affiliation -2021-22, Department - Admission -2021 -22, Department - Website Updation, Department - E- Magazine - Faculty Participation data ISO - DRM Revised Meeting, Students - Let's Create Tamilnadu- Video Review Students - Toycathon 2021, Students - Competition / Events / Training - Faculty Contribution, Placement - Talk/ Training / Internship /Job - Faculty Contribution Faculty - Technical Contribution to Dept / Institutional Development, Faculty - Weekly Review were discussed.







**CSE Department Meeting** was conducted for the discussion about various activities like Students' projects, Department Events and Celebrations on 12.01.2021. In the meeting, Final Year First Review Project Schedule & Template, Third Year Mini Project, Admission Plan, LCT Faculty Mentors, Upcoming Department events (Guest Lectures, FDP, Workshop Plan) & Pongal Celebration plan were discussed.

CSE

## Entrepreneur Development Cell

The Inauguration Ceremony for Entrepreneur Development Cell was held on 13.01.2021. Entrepreneurship is the ability and readiness to develop, organize and run a business enterprise, along with any of its uncertainties in order to make a profit. The Department of Information Technology sharpens the ability and creativity of the students through the Entrepreneur Development Cell.



IT

## Workshop & Webinar



Department of Mechanical Engineering conducted a one day **Workshop** on "Design of Experiments and Its Applications in Manufacturing Industries" in association with Professor Dr. R. Thirumalai, Department of Mechanical Engineering, Dr. N.G.P. Institute of Technology, Coimbatore on 11.01.2021. All the Mechanical Engineering faculty and students attended this workshop.

Mech



ECE

Dr.R.JaiKumar & Mrs. B. Leena, Department of ECE organized a webinar on the title "Machine Learning" on 12.01.2021 through Google meet, presented by Dr.C.S.Saravana Kumar, Software Architect, Robert Bosch, Coimbatore.



**KiTE** Industry Embedded Education | **KGISL** Institute of Technology  
Approved by AICTE, Affiliated to Anna University  
365, KGISL Campus, Saravanampatti, Coimbatore - 641 035.

## WEBINAR ON MACHINE LEARNING

**Chief Guest**  
**Dr C S Saravana Kumar**  
Software Architect  
Robert Bosch  
Coimbatore

**Convenor**  
Dr.S.Suresh Kumar,H.O.D,  
Department of ECE.  
**Coordinators**  
Dr.Jaikumar.R,  
Ms.Leena.B.

**DATE : 12/01/2021**  
**TIME : 10AM – 11AM**

## Department Activities

CSE



**KiTE** Industry Embedded Education

Department of Computer Science and Engineering

**Jan 09th** Event Start Date  
**10th** Last Date to submit Event End Date

**Theme** Pongal Celebration  
Submit Link: [bit.ly/kitecsepongal](http://bit.ly/kitecsepongal)

## POSTER DESIGNING

Winners Announcement on 12/01/2021  
E certificate will be provided to all participants

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**KiTE** Industry Embedded Education

Department of Computer Science and Engineering

**Congratulations! Winners**

**I Prize - Sabarish Manikam H - III CSE B**  
**II Prize - Dakshana. A - III CSE A**  
**III Prize - Mohankumar S - II CSE A**

## POSTER DESIGNING

Event Held on 09/01/2021 to 10/01/2021  
E certificate will be provided to all participants

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Department of Computer Science & Engineering organized Poster Designing Event on the theme "Pongal Celebration". This event was conducted for two days, 09.01.2021 & 10.01.2021. Winners of this event were announced on 12.01.2021.

IT



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DEPARTMENT OF INFORMATION TECHNOLOGY

## Capture Crew

Show your talent

**Concept**  
Photography (Bike or Water Theme)  
Video editing ( Friendship Theme )

**D 11**  
**A 01**  
**T 21**  
**E 21**

03:30PM-04:30PM

\_Capture\_creww\_

"Taking an image, freezing a moment, reveals how rich reality truly is." The Department of Information Technology always encourages our young student photographers through various activities. Photographic club conducted a competition, 'Capture Crew' on 11.01.2021 on the concept Photography (Bike or Water Theme), Video Editing (Friendship Theme)





ECE



**Mr. MANOKARAN .R** from III BE ECE has done a project on **Energy Saver Street Light** under the guidance of **Dr.JAIKUMAR.R** (Associate Professor-ECE) & **Mrs.LEENA.B** (Assistant Professor- ECE).

## Placement

CSE



IV BE CSE students named **Mr.Swarna Vikram M** and **Ms. Anjali Deepak Reddy** got placed in **Tata Consultancy Services** through **TCS Ninja Program**.

*Congratulations!*

IT



**Ms. Pavithrayani** of IV B.Tech IT placed in **Tata Consultancy Services** through **TCS Ninja Program**.

**Ms. Preethi K** of IV B.Tech IT has grabbed her offer at **FACE** as **ProGrad Junior**.



## Faculty Participation

S&H



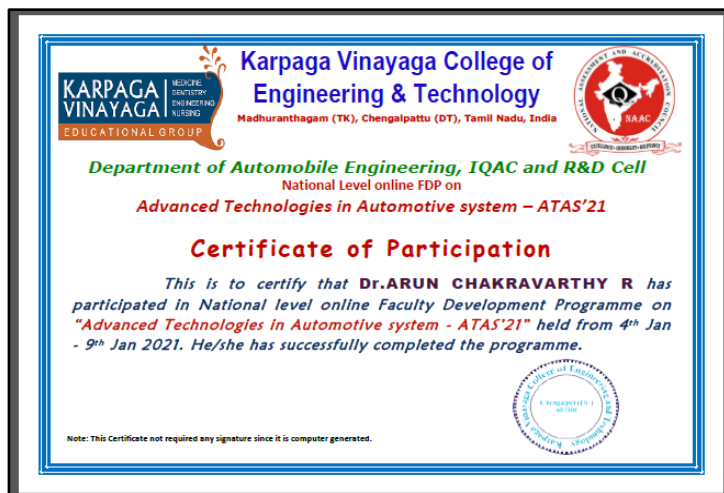
**Mrs.Mohanapriya G**, Assistant Professor, Department of Science & Humanities of **KGiSL Institute of Technology** participated in a webinar titled **"Referencing and Citation Tools: Mendeley"** conducted in association with **Elsevier** on **08.01.2021** organized by **Siva Sivani Institute of Management NH-44, Telangana**.







Ms.P.Bhuvaneshwari, Assistant professor, Department of Science & Humanities of KGiSL Institute of Technology participated in a webinar on the title "Effect of Covid-19 pandemic on Environment and Human Life" organized by Department of Science, Dr.Bhimrao Ambedkar Government College, Amla. (Betul), M.P. on 04.01.2021.



Dr.Arun Chakravarthy participated in a one week FDP on Advance Technologies in Automotive System -ATAS'21 organized by Karpaga Vinayaga College of Engineering & Technology, Chengalpattu, Tamil Nadu held from 04.01.2021 to 09.01.2021 and also participated in The International Technical e-workshop titled 'IoT with Cooja Simulator' on 01.01.2021 organized by Madanapalle Institute of Technology & Science Department of Computer Science and Engineering.

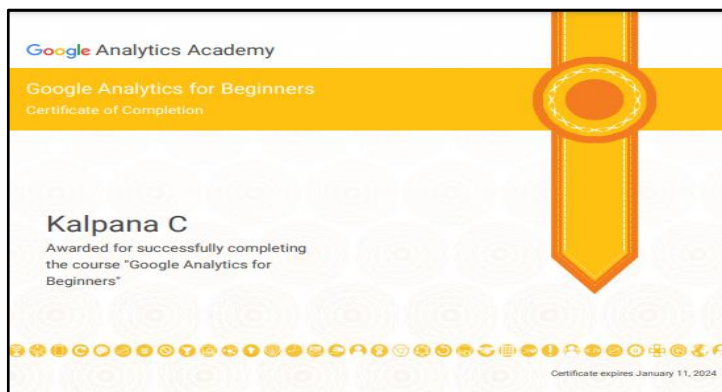


Dr.Mythili.T participated in the International Technical e-workshop titled 'IoT with Cooja Simulator' on 01.01.2021 organized by Madanapalle Institute of Technology & Science Department of Computer Science and Engineering.





Ms. Kalpana C successfully completed a course on "Google Analytics for Beginners" on 11.01.2021 from Google Analytics Academy.



Ms. Shirley Josephine Mary R successfully completed a module in 'How to secure funding - ECR edition' on 11.01.2021 from Researcher Academy.



Prof. C. Narayanaswamy, Head of Mechanical Engineering Department participated in a webinar on "Importance of Intellectual Property Rights (IPR)" organized by the Research Committee and Department of Chemistry, Arasu Engineering College, Kumbakonam on 12.01.2021.



Mr. K. Karthick, Faculty of Mechanical Engineering Department participated in a webinar on the title "Importance of Intellectual Property Rights (IPR)" organized by the Research Committee and Department of Chemistry, Arasu Engineering College, Kumbakonam on 12.01.2021.





Mr. S. Premkumar, Faculty of Mechanical Engineering Department has participated in a webinar on the title "Importance of Intellectual Property Rights (IPR)" organized by the Research Committee and Department of Chemistry, Arasu Engineering College, Kumbakonam on 12.01.2021.



Mr. V. Chandra Bose, Faculty of Mechanical Engineering Department participated in a webinar on the title "Importance of Intellectual Property Rights (IPR)" organized by the Research Committee and Department of Chemistry, Arasu Engineering College, Kumbakonam on 12.01.2021.



Dr. M. Arun, Associate Professor, Department of ECE, attended an International Technical e-workshop on "IoT with Cooja Simulator" on 01.01.2021 organized by Madanapalle Institute of Technology & Science and also he successfully completed an online course on "Why write a book" in Researcher Academy on 16.01.2021.





**Mr.K.Sivaprakash, Assistant Professor, Department of ECE** completed an **AICTE** sponsored online Six days Short Term Training Programme on " **Artificial Intelligence and Deep Learning for Computational Biology**" from **04.01.2021 to 09.01.2021** organized by **PSNA College of Engineering & Technology**.



**Mrs.S.Anitha, Assistant Professor, Department of ECE**, completed an **AICTE** sponsored, online Six days Short term training Programme on " **Artificial Intelligence and Deep Learning for Computational Biology**" from **04.01.2021 to 09.01.2021** organized by **PSNA College of Engineering & Technology**.



**Mr.V.Vivekanandan, Assistant Professor, Department of Computer Science and Engineering** successfully completed **AICTE Training And Learning (ATAL) Academy** an Online FDP on "**Robotic Process Automation: Tools and Techniques**" from **04.01.2021 to 08.01.2021** at **Sri Venkateswara College Of Engineering**.





**Mr.R.Raja,** Assistant Professor, Department of Computer Science and Engineering successfully completed AICTE Training And Learning (ATAL) Academy an Online FDP on "**Robotics**" from 05.01.2021 to 09.01.2021 at Rajeev Gandhi Memorial College of Engineering and Technology.



**Ms.K.Poongothai,** Assistant Professor, Department of Computer Science and Engineering successfully completed **National Level E-Quiz** on "Analysis of Algorithms" conducted by Avinashilingam Institute for Home science and Higher Education for women, held from 10.01.2021 to 12.01.2021.



## Reviewer in Journal



**Ms.SruthiMol P** has reviewed an article from Scopus Index Journal ID 20M-12-1253 with title, "Block chain Technology Application as an Add-On Feature in Supply Chain Management of Drug Production Process in the Pharmaceutical Industry of Special Issue for Advances in Science, Technology and Engineering Systems Journal".



## Student's Corner



Mr. Hariharan J of I year AI & DS completed an online course on HTML and CSS (4 Studies and 3 Dojos) at Progate



Kivin Christoper. D, Logeshwar Raj. K. B, Manju. K, Manoj Barathi. T. R, Mukeshvar. S, Surya. J of III B.E Mech attended implant training in Castwin Alloys from 21.12.2020 to 23.12.2020.

## Info Corner



Dr. Rajkumar.P, Professor, Department of Computer Science and Engineering had shared a few points on the Technical topic "**Beacon**".

### What is a BEACON?

Beacons are small, wireless transmitters that use low-energy Bluetooth technology to send signals to other smart devices nearby. In simpler words, they connect and transmit information to smart devices making location-based searching and interaction easier and more accurate.

### 10 Fast Facts:

1. Beacons are small, wireless sensors that are normally placed in a casing.
2. The technology uses Bluetooth Low Energy (also called Bluetooth Smart or Bluetooth Version 4.0+) to broadcast radio signals or, simply put, to communicate with other smart devices.
3. The broadcasted beacon signals can be captured by smart gadgets, like phones, to call ad-hoc actions.
4. Under the beacon's casing, there is a small ARM computer with a Bluetooth Smart connectivity module, which is powered by a battery.
5. The module runs on firmware, a piece of software installed on beacons.

6. The max Bluetooth Smart payload is 257 bytes, which is insufficient for embedding any media content.
7. As the computing power is limited, it can be used for processing sensor data (information about signal power) and encrypting a beacon's ID.
8. There is a small antenna from the CPU.
9. The antenna is built in to broadcast electromagnetic waves with specific length and frequency (2.4 GHz radio waves).
10. The technology is primarily used for mapping and location services using the RSSI (Received Signal Strength Indicator) estimate. The location services are normally conducted by a framework (SDK built in the core location), which includes noise reduction algorithms to make the signals smoother and the results fairer.

### **Benefits of Beacons**

Even though the beacon is not as popular of a tracking technology as GPS, it is being progressively implemented by IoT software development companies. Shopper mapping, beacon advertising, customer loyalty systems and many other projects have used beacons, and IoT solutions have been turned into reality.

Today beacons are being used in the healthcare and industrial spheres. BLE beacon solution providers see the possibility for implementing them to enable better asset tracking in hospitals, enhance equipment utilization, improve information flow to hospital staff and increase the overall quality of medical services.

Beacons combine both offline and online campaigns, as well as connect indoor and outdoor devices into a single self-monitoring network. Using a Bluetooth connection, the technology is cheaper than alternatives and easier to use and support. Though developers are continuing to work on technology improvements, the beacons' IoT use cases show the viability and benefit of these projects.

### **Beacon IoT Use Cases**

Beacon developers are still struggling with a number of unsolved issues, including designing better antenna shapes and increasing signal distance. Despite this, beacons are increasingly being implemented in many retail IoT solutions, and are projected to extend further into the industrial and healthcare spheres. Several of the use cases are presented below.

#### **1. BEACON IoT ADS APPLICATION**

The retail application is a beacon IoT solution that uses Bluetooth geolocation to give shoppers valuable information about sales and other promos that they may



find in their vicinity, for example in a shopping mall. The information is displayed on their smart Bluetooth-supporting devices.

By connecting directly with potential customers, the beacons help vendors focus their marketing campaigns with minimal effort. The beacon advertising applied by Rainbow Light boosted the average sales rate of vendors using it by 15%.

Among the beacon IoT products in the retail segment, there are also products supporting shopper mapping, customer loyalty management, in-store digital media and others.

## **2. BEACON-POWERED SMART SHELVES**

A beacon-powered smart shelf is supplied with a radio frequency identification reader (RDIF). The reader can be built into the shelf or placed above, underneath or behind the shelf. What can it do? The reader scans the targeted items on the shelf and then notifies the backend system of the items placed on the shelf.

This allows for a better understanding of customer demands and preferences. However, the smart shelves can be no less valuable for plant storage in the industrial sphere, where it can allow fast and easy stock control and tracking.

Today, this beacon IoT project has been applied by the U.S. supermarket chain Kroger, but it has the potential for many other business segments.

## **3. BEACON IoT APP FOR LOCAL NEWS**

The internet allows us to get fresh news from around the world in a blink of an eye. Beacon technology helps users to experience location-based storytelling.

UK-based start-up Otherworld applies Google Eddystone beacons across Manchester to provide local stories to pedestrians' smart phones. This helps attract tourists and tell the citizens of Manchester about the latest news, events, offers and facts about the city. When a pedestrian exits the beacon range, the story disappears from the device screen.

