

# HACKATHON

## Get Ready to Play, Craft & Learn

Minecraft: Education Edition is an open world game that promotes creativity, collaboration, and problem solving in an immersive environment where the only limit is your imagination.



During this 1-day (6-hour), in-person session, students will explore Minecraft: Education Edition and learn to play the game, and create a project on the same.

## Session Agenda

<b>Get to Know</b>	<ul style="list-style-type: none"><li>• Get to Know Minecraft</li><li>• Learn to Play Minecraft<ul style="list-style-type: none"><li>○ Introduction to Minecraft,</li><li>○ applications of Minecraft,</li><li>○ basics of Minecraft and setting up Minecraft</li></ul></li></ul>	2 hours
<b>Learn &amp; Play</b>	<ul style="list-style-type: none"><li>• Exploring characters, features, digging and building in Minecraft.</li><li>• Construction of different worlds such as Math world, Deforestation world and etc.</li></ul>	2 hours
<b>Prepare to Craft</b>	<ul style="list-style-type: none"><li>• Setting up code connection for Minecraft and coding for Minecraft Education edition using MakeCode, ScratchX and Tynker.</li><li>• Construction of Worlds such as Logic gates, Book world, Roller coaster and etc., by using coding concepts.</li></ul>	2 hours

Please note that this is not a Microsoft event and is a De Pedagogics endeavour. Should this be of interest to you, feel free to connect with us and we'll be happy to discuss the details

*Brought to you by*

*In partnership with*

**De Pedagogics**  
-nurturing education

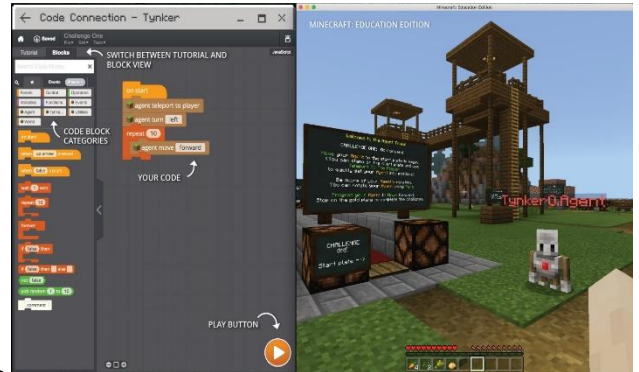
**Centinel Spark Technologies**

# HACKATHON

## Get Ready to Play, Craft & Learn

Minecraft: Education Edition is an open world game that promotes creativity, collaboration, and problem solving in an immersive environment where the only limit is your imagination.

During this 20-hour, in-person session, students will deep dive Minecraft: Education Edition and learn to play the game, and create a project on the same.



## Session Agenda

<p><b>Get to Know</b></p>	<ul style="list-style-type: none"> <li>• Get to Know Minecraft</li> <li>• Learn to Play Minecraft                             <ul style="list-style-type: none"> <li>○ Introduction to Minecraft,</li> <li>○ applications of Minecraft,</li> <li>○ basics of Minecraft and setting up Minecraft</li> </ul> </li> <li>• Exploring characters, features, digging and building in Minecraft.</li> <li>• Construction of different worlds such as Math world, Deforestation world and etc.</li> </ul>	<p>6 hours</p>
<p><b>Learn &amp; Play</b></p>	<ul style="list-style-type: none"> <li>• Construction of Factor stories, Book world, Roller Coaster and etc.,</li> <li>• Installation and setting up Code connection.</li> <li>• Exploring coding features and using agent character</li> </ul>	<p>7 hours</p>
<p><b>Prepare to Craft</b></p>	<ul style="list-style-type: none"> <li>• Using ScratchX or Tynker or Makecode for constructing Farming world and Rollercoaster world.</li> <li>• Construction of a world that includes solutions for Air, water and soil pollution.</li> <li>• Construction of own world by including all concepts</li> </ul>	<p>7 hours</p>

### Our aim in this session is to:

1. develop the ability to map things into real-time situation
2. promote the ability to understand the depth of the concepts
3. foster thinking and analytical skills
4. enable students to understand and code basic programming languages

Please note that this is not a Microsoft event and is a De Pedagogics endeavour. Should this be of interest to you, feel free to connect with us and we'll be happy to discuss the details

Brought to you by

In partnership with

**De Pedagogics**

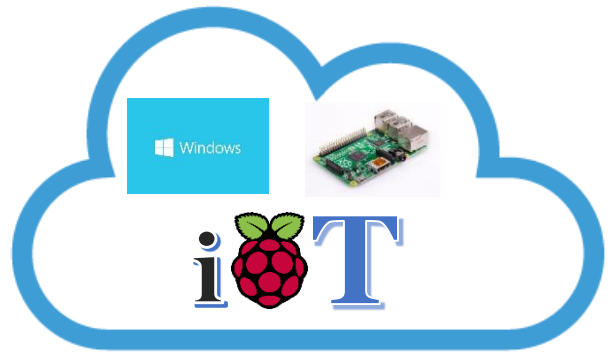
-nurturing education

**Centinel Spark Technologies**

# HACKATHON

## Get Ready to Play, Craft & Learn

Internet of Things (IoT) is the concept of basically connecting any device with an on and off switch to the Internet (and/or to each other). It's time to give technology in the hands of students to enable them to become contributors to technology along with being the consumers and shape their world by designing solutions to some of the problems the we face today. During this 1-day (6-hour), in-person session, students will learn to innovate, code, create and build projects to solve real-time issues for Agriculture, Waste Management, Water Pollution and Air pollution.



## Session Agenda

<b>Get to Know</b>	<ul style="list-style-type: none"><li>• Introduction to IoT and applications of IoT</li><li>• Structure of IoT, types of devices used in IoT</li></ul>	2 hours
<b>Learn &amp; Play</b>	<ul style="list-style-type: none"><li>• Introduction to development board (Raspberry Pi), introduction to Linux and programming on Raspberry Pi with python</li><li>• Working on LED blinking project using RPI, controlling LED's from mobile phone</li></ul>	2 hours
<b>Prepare to Craft</b>	<ul style="list-style-type: none"><li>• Introduction to Sensors and working on IR and Ultrasonic sensor along with motors.</li><li>• Working on own project to solve real time issues for Agriculture, Waste Management, Water Pollution and Air pollution</li></ul>	2 hours

Please note that this is not a Microsoft event and is a De Pedagogics endeavour. Students shall receive certificate of merit for the session from us Should this be of interest to you, feel free to connect with us and we'll be happy to discuss the details

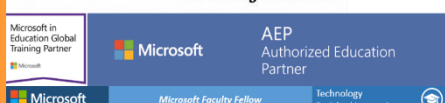
Brought to you by

In partnership with

**De Pedagogics**

-nurturing education

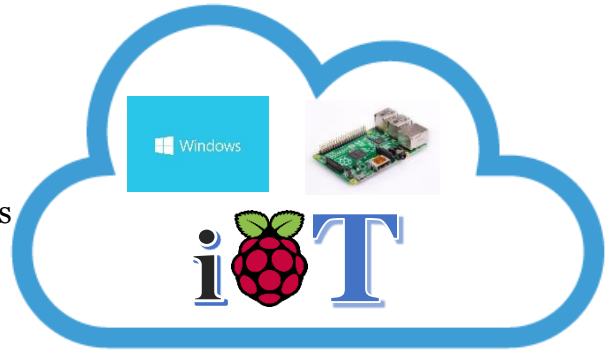
**Centinel Spark Technologies**



# HACKATHON

## Get Ready to Play, Craft & Learn

Internet of Things (IoT) is the concept of basically connecting any device with an on and off switch to the Internet (and/or to each other). It's time to give technology in the hands of students to enable them to become contributors to technology alongwith being the consumers and shape their world by designing solutions to some of the problems the we face today. During this 20-hour in-person session, students will learn to innovate, code, create and build projects to solve real-time issues for Agriculture, Waste Management, Water Pollution and Air pollution and more.



## Session Agenda

<b>Get to Know</b>	<ul style="list-style-type: none"> <li>• Introduction to IoT and applications of IoT.</li> <li>• Structure of IoT, types of devices used in IoT.</li> <li>• Introduction to development board (Raspberry Pi/Node MCU), introduction to Linux and programming on Raspberry Pi with python.</li> <li>• Working on LED blinking project using RPI, controlling LED's from mobile phone</li> </ul>	6 hours
<b>Learn &amp; Play</b>	<ul style="list-style-type: none"> <li>• Introduction to Sensors and working on IR and Ultrasonic sensors.</li> <li>• Introduction to Motors and LDR, working on projects using motors and LDR.</li> <li>• Introduction to float sensor and working on a project using float sensor and buzzer.</li> <li>• Introduction to Relay controller and making a project to control real time appliances.</li> <li>• Introduction to Video surveillance system and developing a system using iot concepts.</li> </ul>	7 hours
<b>Prepare to Craft</b>	<ul style="list-style-type: none"> <li>• Brainstorm ideas to design project</li> <li>• Project planning</li> <li>• Working on own project for solving real time issues of agriculture, waste management, Water pollution and Air pollution or any topic of choice</li> </ul>	7 hours

### Our aim in this session is to:

- Student understands the concept of Hardware and software
- Student will be able to analyze working of any smart/electronic device
- Improves creativity
- Improves analytical and logical thinking
- Able to work with Linux Operating System and to code using python programming language

Please note that this is not a Microsoft event and is a De Pedagogics endeavour. Students shall receive certificate of merit for the session from us and successful projects shall get a chance to participate in Microsoft Entrepreneurship & Innovation Challenge 2017 (last date 30<sup>th</sup> Nov'17). Should this be of interest to you, feel free to connect with us and we'll be happy to discuss the details

Brought to you by

In partnership with

**De Pedagogics**  
-nurturing education

**Centinel Spark Technologies**