|  |
| --- |
| **Proposal for Innovation Project**  Elephants Detection |

**BY**

**Name**

**Budsakol Soontornkarnwiroj**

**Address:** 38/590 Noble Revolve Soi 6, Ratchadapisek Road, Huai Khwang, Bangkok, Thailand 10310

**Mobile:** 085-359-8162

**Email:** Budsakol.soontorn@hotmail.com

**26 August 2019**

**Project Information**

**Section 1 Overview**

**Section 2 Personal Information**

**Section 3 Project objectives**

**Section 4 Literature Review / Existing Innovation**

**Section 5 Marketing analysis**

**Section 6 Project Budget**

**Section 7 Activity Plan and Gantt Chart**

**Section 8 Project Outcome**

**1. Overview**

##### 1.1 Project name

Elephants Detection

**1.2 Abstract**   
The issue of security is very paramount for the people who live in the risk areas that face with wild elephants come to rampage or disturb. Therefore, we intent to aid the security for the people in the risk area by bringing the IOT technology system that involves warning and monitoring the elephant that close to community and look dangerous. Also, this innovation can protect the village that near the risk area

**1.3 Scope of work**   
1.3.1 Risk Warning or report -Using IoT technology detect the elephant that come close to community

1.3.2 Dashboard -To show the data that come from the device to analyse and monitor that easy to understand the data

1.3.3 Cloud or Database -To storage the real time data that come from sensor and IoT technology

1.3.4 Motion sensors -To track movement on the perimeter of the residence

1.3.5 Wireless controller – allows the user to activate or deactivate the system remotely and communication between microprocessor and API

**2. Personal Information**

Name: Budsakol Soontornkarnwiroj

Position: Student

Address: 38/590 Noble Revolve Soi 6, Ratchadapisek Road, Huai Khwang, Bangkok, Thailand 10310

Tel: .............-................................. Fax: ..................-............................ Mobile: 085-359-8162

Email: Budsakol.Soontorn@hotmail.com

Education Level: Bachelor’s degree

Experience: Experienced in Kibana and Elasticsearch to do Data Analysis and Data Visualization

**Project Team Chart**

|  |
| --- |
|  |

**3. Project objectives**

1. To Develop system for detecting elephant motion to safety and warning of wild elephants when it comes close to the community
2. To learn the behavior of wildlife around the community

**4. Literature Review / Existing Innovation**

|  |  |  |
| --- | --- | --- |
| Project name | Detail | Technology usage |
| IoT based Air Quality Monitoring | To design an air quality monitoring system by utilizing module. As the result, users can monitor the air quality using smartphone connected through Wi-Fi. Therefore, the air condition can be monitored every time. | IoT Technology  Cloud  AI Technology |
| IoT Based Smart Water Irrigation System | IoT project like smart water irrigation system proposes here an automated water irrigation system that can analyse the moisture of soil and climate condition. Users will be able to check the moisture level, and with the predefined threshold for a moisture level of soil, the power supply will be cut-off. | IoT Technology  Cloud  AI Technology |

**5. Marketing analysis**

**5.1 Marketing information**

|  |
| --- |
| **1) Market Size** |
| IoT Platform $530M  All Thailand National Parks or around 136 places |

|  |
| --- |
| **2) Target** |
| There are 2 types  1. Government (Village that near to wildlife zone)  2. Business (Hotel or Resort near to wildlife zone) |

|  |
| --- |
| **3) Market Share** |
| Around 48% of IoT business platform for Detection |

|  |
| --- |
| **4) Product/Service Positioning** |
| ผลการค้นหารูปภาพสำหรับ product positioning  Smart Bin System  ThaiWater  iPMMS (PTT)  Smart Park |

|  |
| --- |
| **5) Condition and Law Enforcement** (Optional) |
| มาตรา ๑ พระราชบัญญัตินี้ให้เรียกว่า “พระราชบัญญัติรักษาช้างป่า พระพุทธศักราช ๒๔๖๔” |

**5.2 Business Model Canvas**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Key Partners**  **1.) True IOT**  **2.) National Park**  **3.) Royal Forest Department**  **4.) Government** | **Key Activities**   1. **extensive safety of detecting elephant near the community to ensure the safety of people in the community** 2. **Analytics** 3. **R&D to -----** | **Value Propositions**   1. **To provide warning for community when elephants come close to community** 2. **To analyze the Wild animal’s behavior** 3. **To solve the problems of long-term forest elephants for long-term sustainability** | **Customer Relationships**   1. **Head Community** 2. **Social Media** 3. **User Support (App or Website)** 4. **Recommendation System** | **Customer Segments**   1. **Government (Village that near to wildlife zone)** 2. **Business (Hotel or Resort near to wildlife zone)** |
| **Key Resources**   1. **Staff (Developer, Engineer, Data Analyst)** 2. **App** 3. **Algorithms & Data** | **Channels**   1. **Desktop, PC, Mobile App (IOS, Android)** 2. **Social Media** |  |
| **Cost Structure**   1. **Set-up cost** 2. **Software & Hardware** 3. **Staff Salaries** 4. **Maintenance and Security** 5. **IoT Technology** | | | **Revenue Streams**   1. **License Fee** 2. **Advertising** | |
|  | | | | |

**6. Project Budget**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Items | Capital Source | | | Total |
| Own | Bank | VC |
| 1. Hardware |  |  |  |  |
| 1.1 PC |  | 45,000 Baht |  |  |
| 1.2 NB-IoT | 2,500 Baht |  |  |  |
| 1.3 Camera Detector |  | 5,500 Baht |  |  |
| 1.4 TV | 4,320 Baht |  |  |  |
| 1.5 Smart Phone |  | 25,000 Baht |  |  |
| 2. Software |  |  |  |  |
| 2.1 Elastic Cloud | $49 (1,500Baht) per month |  | $49 (1,500Baht) per month |  |
| 2.2 Appery | $90 (2,700Baht) per month |  | $90 (2,700Baht) per month |  |
| 3. Setup cost |  |  |  |  |
| 3.1 Network Set-up | 2,350 Baht per month |  | 2,350 Baht per month |  |
| 3.2 Device Set-up | 25,000 Baht |  |  |  |
| 4. Service cost |  |  |  |  |
| 4.1 Network security | $75(2,250 Baht) per month |  | $75(2,250 Baht) per month |  |
| 4.2 Maintenance cost | 1,500 Baht per month |  | 1,500 Baht per month |  |
| 5. Training cost |  |  |  |  |
| 5.1 Basic user training |  | 45,000 Baht |  |  |
| 5.2 |  |  |  |  |
| **Total** | **42,120 baht** | **120,500 Baht** | **10,300 Baht per month** | **172,920 Baht** |
| **อัตราส่วน** | **24.36%** | **69.7%** | **5.96%** | **100%** |

**7. Activity Plan and Gantt Chart**

Duration ……6……. Month

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Activity | Month | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1. Project Requirement |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Form Team |  |  |  |  |  |  |  |  |  |  |  |  |
| 3. Literature Review |  |  |  |  |  |  |  |  |  |  |  |  |
| 4. Review Idea |  |  |  |  |  |  |  |  |  |  |  |  |
| 5. On Site Meeting |  |  |  |  |  |  |  |  |  |  |  |  |
| 6. Discussions with Stakeholder |  |  |  |  |  |  |  |  |  |  |  |  |
| 7. Case Analysis  8. Analyze System Needed |  |  |  |  |  |  |  |  |  |  |  |  |
| 9. Document Systems |  |  |  |  |  |  |  |  |  |  |  |  |
| 10. Analysis Complete |  |  |  |  |  |  |  |  |  |  |  |  |
| 11. Design Database |  |  |  |  |  |  |  |  |  |  |  |  |
| 12. Design System |  |  |  |  |  |  |  |  |  |  |  |  |
| 13. Develop System |  |  |  |  |  |  |  |  |  |  |  |  |
| 14. On Site Setting |  |  |  |  |  |  |  |  |  |  |  |  |
| 15. Integrate System |  |  |  |  |  |  |  |  |  |  |  |  |
| 16. Testing System |  |  |  |  |  |  |  |  |  |  |  |  |
| 17. Perform Document |  |  |  |  |  |  |  |  |  |  |  |  |
| 18. Project Debriefing |  |  |  |  |  |  |  |  |  |  |  |  |
| 19. Evaluate System |  |  |  |  |  |  |  |  |  |  |  |  |

**8. Project Outcome**

1. Planning Document in month 2
2. Analysis Document in month 3
3. System Design Document in month 4
4. Real System in month 5
5. Testing Result Document in month 6
6. Evaluation Document in month 6