

# Research Proposal Form

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**Tutor:** Do Quoc Binh

**Date:** 01/03/2021

**Unit 13:** Computing research project

**Propose title:** The study of smart home use IOT in Hanoi recommendations.

## Section One: Title, objective, responsibilities

### Research question:

How smart home are helpful to people in the live?

### Objectives

I want to learn:

- What are smart home?
- What is IoTs in general?
- Some applications about IOT technology you know?
- What popular features that smart home brings to users in daily live?
- Are accessibility and audio controller is your priority when choosing a smart home applications?
- How smart home improve quality of life to make more useful to families?
- How home management and check in healthy of smart home application help you feel useful and comfortable to change lifestyle?
- Suggestions for apply smart home in urban area and luxury villas in Hanoi city.
- Suggestion for apply smart home in countryside and public.

## Section Two: Reasons for choosing this research project

Reasons for choosing the project

- I am interested in the potentials of IoTs in general and smart home in particular
- I am planning to have project about IoT and I learning more knowledge and experience about IoT and specially application smart home.
- Smart home is a topic pretty popular in nowadays, which many companies and many people are researching so it would help me to find research and collect information material easier
- I think smart home will be popular and increasingly advanced and modern in my country in coming soon in the next few years

(e.g. links to other subjects you are studying, personal interest, future plans, knowledge/skills you want to improve, why the topic is important):

SmartHome is a difficult but extremely appealing market.

According to Statista's smart home market statistics, revenue of around 45 million USD was generated until April 2018. Many experts predict that by 2022, this will have grown to \$ 319 million, with a compound annual growth rate (CAGR) of 67%.

### Section Three: Literature sources searched

The initial sources which could help me to answer those questions:

- IoT for smart homes/ URL:  
[https://www.researchgate.net/publication/336325413\\_IoT\\_for\\_smart\\_homes](https://www.researchgate.net/publication/336325413_IoT_for_smart_homes) /Sensors in the Age of the Internet of Things: Technologies and applications (pp.171-199)
- Smart Home Systems Based on Internet of Things/ URL:  
[https://www.researchgate.net/publication/331615662\\_Smart\\_Home\\_Systems\\_Based\\_on\\_Internet\\_of\\_Things](https://www.researchgate.net/publication/331615662_Smart_Home_Systems_Based_on_Internet_of_Things) /IoT and Smart Home Automation [Working Title]
- Benefits and risks of smart home technologies/ URL:  
<https://www.sciencedirect.com/science/article/pii/S030142151630711X>. /Energy Policy Volume 103, April 2017, Pages 72-83.
- Smart home technologies in everyday life: do they address key energy challenges in households?/ URL:  
<https://www.sciencedirect.com/science/article/abs/pii/S1877343517300891>. /Current Opinion in Environmental Sustainability Volume 31, April 2018, Pages 65-70.
- IOT: Smart House/ URL: <https://www.pfw.edu/departments/etcs/depts/ece/senior-design/iot-smart-house.pdf>. / Senior Design IOT: Smart House

Use of key literature sources to support your research question, objective or hypothesis:

### Section Four: Activities and timescales

1. Collect materials relating to research's question and objectives
2. Complete research proposal
3. **Milestone 1[1-March]**: Get feedback from the Tutor about the research proposal
4. Produce project plan-WBS, Gantt Chart
5. Writing literature review and represent the findings in term of hypothesizes
6. Check project progress: research proposal, plan, literature review
7. Preparation for primary research(to confirm the findings in literature review or clarify the

questions might arise after the literature review)

8. **Milestone 2[7-March]**: Get feedback from the Tutor about the plan of primary research.
9. **Milestone 3[22-March]** Get feedback from the Tutor about the result of literature review
10. Conducting the primary research
11. **Milestone 4[30-March]**: Represent the findings in primary research and get feedback from Tutor
12. Writing assignment 1 which contains LO1, LO2
13. **Milestone 5[7-April]**: Submit assignment 1 -Draft
14. **Milestone 6[14-April]**: Submit assignment 1- Final
15. Writing Assignment 2 which contain LO3, LO4
16. **Milestone 7[20-April]**: Submit assignment 2 -Draft
17. **Milestone 8[]**: Presentation- put everything together.
18. **Milestone 9[27-April]**: Submit assignment 2- Final

Activities to be carried out during the research project (e.g. research, development, analysis of ideas, writing, data collection, numerical analysis, tutor meetings, production of final outcome, evaluation, writing the report) and likely durations:

Milestone one:

Target Date(set by tutor)

Milestone two:

Target Date(set by tutor)

### Section Five: Research approach and methodologies

- Research process: sequential
- Research classes: quantitative and qualitative
- Research methods: case study, survey

Type of research approach and methodologies you are likely to use, and reasons for your choice:

What your areas of research will cover:

**Comments and agreement from tutor**

~~[This part not for student]~~

Comments (optional):

I confirm that the project is not work which has been or will be submitted for another qualification and is appropriate.

Agreed: ..... (Name) ..... (Date) .....

**Comments and agreement from project proposal checker (if applicable)**

~~[This part not for student]~~

Comments (optional):

Agreed: ..... (Name) ..... (Date) .....