

**Final Report**

**Project Title** (English): ……………………………………

Project Title (Thai): ……………………………………..

Contract number:…………………………….

By

Principal Investigator (PI): ……………………………………………..

Affiliation of PI: ……………………………………………

**Sub plan F13 (S4 P21)** Developing and cultivating research personnel and enhancing scientific brainpower, including scientists and innovators with advanced skills, to increase their numbers and align with the country's needs, using science, research, and innovation.

**Program 21 (S4)** Enhancement of Human Capital and Development of Advanced Frontier Science, Research, and Innovation for New Opportunities and

Future-Readiness for the Country.

**Fiscal Year**…………

**Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)**

**Office of National Higher Education Science Research and   
Innovation Policy Council (NXPO)**

|  |  |
| --- | --- |
| **Sub plan** F13 (S4 P21) Developing and cultivating research personnel and enhancing scientific brainpower, including scientists and innovators with advanced skills, to increase their numbers and align with the country's needs, using science, research, and innovation. | **Contract no.** ……………………… |

**Confidential Document**

**Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)**

**Office of National Higher Education Science Research and Innovation Policy Council (NXPO)**

**Final Report**

Project duration: *Project start date* to *Project end date\**

*(\* Departure and Arrival Dates)*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Title (English)** |  | | | | | | | | | | |
| **Project Title (Thai)** |  | | | | | | | | | | |
|  |  | | | | | | | | | | |
| **Principal Investigator** |  | | | | | | | | | | |
| **Affiliation (Faculty/University)** |  | | | | | | | | | | |
| **Contact Address** |  | | | | | | | | | | |
|  |  | | | | | | | | | | |
| **Mobile phone** |  | | | | **e-mail:** | | |  | | | |
| **Roles and Responsibilities** |  | | | | | | | | | | |
| **Proportion of Responsibility (%)** |  | | | | | | | | | | |
|  |  | | | | | | | | | | |
| **Project Collaborator** |  | | | | | | | | | | |
| **Affiliation (Faculty/University)** |  | | | | | | | | | | |
| **Contact Address** |  | | | | | | | | | | |
|  |  | | | | | | | | | | |
| **Mobile phone** |  | | | | **e-mail:** | | |  | | | |
| **Roles and Responsibilities** |  | | | | | | | | | | |
| **Proportion of Responsibility (%)** |  | | | | | | | | | | |
|  |  | | | | | | | | | | |
| **Project Collaborator** |  | | | | | | | | | | |
| **Affiliation (Faculty/University)** |  | | | | | | | | | | |
| **Contact Address** |  | | | | | | | | | | |
|  |  | | | | | | | | | | |
| **Mobile phone** |  | | | | **e-mail:** | | |  | | | |
| **Roles and Responsibilities** |  | | | | | | | | | | |
| **Proportion of Responsibility (%)** |  | | | | | | | | | | |
|  |  | | | | | | | | | | |
| **Budget (PMU-B)** |  | | | | | **Baht** | | | | | |
| **Budget (France)** |  | | **Euro** | | |  | | | | **Baht** | |
| **Report Duration** |  | **Month** | | **Project period** | | |  | | **to** | |  |
|  |  |  | |  | | |  | |  | |  |

**🞏 Project data and documents have been uploaded as required by the National Research and Innovation Information System (NRIIS)**

***PI Signature: ………………………………………***

***(…………Full name of PI……………….)***

**Table of Contents**

|  |  |
| --- | --- |
|  | **Page** |
| 1. บทสรุปข้อเสนอโครงการ (in Thai) |  |
| 1. Executive Summary |  |
| 1. Rationale |  |
| 1. Objectives |  |
| 1. Conceptual Framework |  |
| 1. Research Methodology |  |
| 1. Research Results |  |
| 7.1 Activities Performed |  |
| 7.2 Results and Discussion |  |
| 7.3 Comparative Analysis with Planned Activities |  |
| 7.4 Outputs, Outcomes, and Impacts |  |
| 7.5 Succession rate |  |
| 1. Research Summary |  |
| 1. Problems, Challenges, and Recommendations |  |
| 1. Future Directions |  |
| 1. Budget report |  |
| 1. References |  |
| 1. Appendices   A: Curriculum Vitae and experience in the exchange laboratory |  |
| B: Confirmation Letter of Researcher’s Laboratory Participation |  |
| C: Draft manuscript |  |
| D: Product and Process Prototype (Industrial Level) |  |
| E: Collaboration Network |  |
| F: …. |  |

**List of Tables**

|  |  |  |
| --- | --- | --- |
| **Table no.** |  | **Page** |
| 1 | ……………………………………………………………………………………………… | ……. |
| 2 | ……………………………………………………………………………………………… | ……. |
| 3 | ……………………………………………………………………………………………… | ……. |

**List of Figures**

|  |  |  |
| --- | --- | --- |
| **Figure no.** |  | **Page** |
| 1 | ……………………………………………………………………………………………… | ……. |
| 2 | ……………………………………………………………………………………………… | ……. |
| 3 | ……………………………………………………………………………………………… | ……. |

**1. บทสรุปข้อเสนอโครงการ (in Thai)**

*(Note: Provide a concise summary of the project’s activities, outputs, outcomes, and impacts, highlighting key achievements and benefits derived from the project. Limit this section to 1 page.)*

**2. Executive Summary**

*(Note: Provide a concise summary of the project’s activities, outputs, outcomes, and impacts, highlighting key achievements and benefits derived from the project. Limit this section to 1 page.)*

**3. Rationale**

*(Note: Explain the background and significance of the project, including previous research, scope, and expected benefits. Highlight the necessity of the research and its alignment with national or industrial priorities.)*

**4. Objectives** (list)

**5. Conceptual Framework**

*(Note: Describe the research framework, including variables and their relationships. Clearly outline theoretical underpinnings and conceptual models guiding the research.)*

**6. Research methodology**

*(Note: Provide a detailed description of the methods and materials used. Indicate any modifications to the original proposal.)*

**7. Research results**

*(Note: Provide complete and clear details of the results achieved. Compare the results with the original activity plans. Include any relevant documents to support the findings. Add additional sections to present results if required. Where applicable, include images, charts, tables, illustrations, and analyses that are beyond the prescribed scope. Note that the level of detail in this section will influence the approval for final disbursement of funds.)*

**7.1** **Activities Performed** *(Compare planned activities with actual implementation.)*

| **Research activities**  **as proposed in the project proposal** | **Timeline** | **Details of actual activities performed** |
| --- | --- | --- |
| Activity 1 | Month X | Details of Activity 1 |
| Activity 2 | Month X | Details of Activity 2 |

***Example***

| ***Research activities***  ***as proposed in the project proposal*** | ***Details of actual activities performed*** |
| --- | --- |
| *1) Submit for research ethics approval* | *The project submitted an ethics application to the ethics committee at ...................... University on February 12, 2022, and the ethics committee has approved it. The research ethics certificate is attached in Appendix.....* |
| *2) Administer questionnaires to 200 target samples* | *The project administered questionnaires to 100 target individuals in Khon Kaen province. However, due to the COVID-19 pandemic, the project was delayed in collecting questionnaires compared to the planned schedule. The project plans to collect additional questionnaires to meet the full number in the 7th month of the operational plan. A sample questionnaire is attached in Appendix.....* |
| *3) Create a database of multi-view photographs of various object types* | * *Data collection of images was conducted to create a database for running and building models. Examples of collected images include ................ (Examples of collected images are attached in the Appendix).* * *In this progress report period, ....... objects (.......... images per object) have been collected.* |

**7.2 Results and Discussion**

*(Description: Please specify the details of the operational results as stated in the contracted project proposal.)*

**7.3 Comparative Analysis with Planned Activities**

*(Note: Present a comparison between planned and actual activities, including the percentage of completion and milestones achieved.)*

| **Activity operation in each period** | **Plan vs Actual** | **Accumulated progress percentage of operations in each month (%)** | | | | | | | | | | | | **Accumulated operational activities (%) (\*)** | **Proportion of activities to the overall project (%) (\*\*)** | **Outputs to be delivered**  **in each period** | **Outputs produced**  **during the reporting period** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
| **Activities** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| **1** | **Plan** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **1. 2. 3. 4.** | **1. 2. 3. 4.** |
| **Actual** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | **Plan** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Actual** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | **Plan** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Actual** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **% plan summary** | | | | | | | | | | | | | | **100** | **100** |  |  |
| **% Actual summary** | | | | | | | | | | | | | | **………. (\*)** | **……….. (\*\*)** |

**7.4 Outputs, Outcomes, and Impacts**

*(Description: Summarise and compare the outputs, outcomes, and impacts from the research that align with the OKRs as per the research plan for developing and leveraging high-potential individuals in collaboration with industry. This can be considered as proposed in the project proposal.)*

**7.4.1 Output**

| **Output Items**  **(As specified in the contracted project proposal)** | **Details as per project proposal (Quantity)** | **Details of operational results (Please specify details)** | **Progress of output (%)** |
| --- | --- | --- | --- |
| 1. A high-performance researcher with skills in research field, who conducted collaborative research at University/Institute, City, China, for 6 months. |  | A high-performance researcher with skills in research field, who conducted collaborative research at University/Institute, City, China, for 6 months.  Name:  Specific Skills: |  |
| 1. Draft academic articles (manuscripts) submitted to international academic journals indexed in the Scopus database, Q1/Tier1 level, which are research results in the field of ..........................., totaling ......... articles. |  | Draft academic articles (manuscripts), ....... articles.  Authors. Title. Journal. Submitted.  Or Plan to submit to journal......  Scopus: Q1/Tier 1 |  |
| 1. ...... |  |  |  |

**Output details**

* **Details of academic articles published in international academic journals**

| **No.** | **Ranking** | **Database** | **Publication details**  **(Author name, Title, Journal name, Volume, Page number, Impact factor, and ranking Tier1/Q1)** |
| --- | --- | --- | --- |
| *1* | *Specify Tier 1 or Q1 or others*  Rank:  Percentile: | *Scopus/ ISI* | ***Example:*** *Kumar, A, Su, H.C., Chen, Y.S. and Arpornwichanop, A. (2021). Effect of catalyst layerwith zeolite on the performance of a proton exchange membrane fuel cell operated underlow-humidity conditions. International Journal of Hydrogen Energy, 46, 15878-15886. (IF-2020 = 5.816) (Q1) doi.org/10.1016/j.ijhydene.2021.02.033* |

* **Product Prototype / Process Prototype**

| **No.** | **Type** | **TRL Level** | **Title** | **Prototype Details / Guidelines for Utilization** |
| --- | --- | --- | --- | --- |
| *1* | *Product Prototype/ Process Prototype* |  |  |  |

* **Collaboration Network**

| **No.** | **Collaboration Details** | **Collaborating Agency** |
| --- | --- | --- |
| 1 |  |  |
| 2 |  |  |

**7.4.2 Outcome**

| *Outcome Items*  *(As specified in the contracted project proposal)* | **Details as per project proposal (Quantity)** | **Details of operational results**  **(Please specify details)** |
| --- | --- | --- |
|  |  |  |
|  |  |  |

**7.4.3 Impact**

| **Impact Items**  **(As specified in the contracted project proposal)** | **Details as per project proposal (Quantity)** | **Details of operational results**  **(Please specify details)** |
| --- | --- | --- |
|  |  |  |
|  |  |  |

**7.5 Project success rate, %**

*(Description: Specify the percentage of success according to the plan.)*

Project success is ............ % of the overall project plan (Comparing with plan)

Goal achievement is ............ % of the overall project target (Comparing with target)

**8. Research Summary**

*(Description: Provide details of achievements from the study, such as the strengths of the developed system, data showing opinions/satisfaction of companies/agencies collaborating with the project regarding the participation of post-doctoral researchers from the project in their companies/agencies, and key achievements.)*

**9. Problems, Challenges, and Recommendations**

*(Description: Identify problems and obstacles encountered during project implementation that caused delays, inability to proceed as planned, or inability to complete on time, along with solutions and recommendations to prevent similar problems in the future.)*

**10. Future Directions**

*(Description: Methods and guidelines for driving research work or output. Plan for Research Work Extension or Project)*

**11. Budget report (PMU-B part)**

*(Description: Summarize the budget received and expenditures)*

**11.1 Budget Received and Expenditures**

| **Budget** | **Revenue** | | **Expenditure** | **Remaining Balance** |
| --- | --- | --- | --- | --- |
| **Amount Received** | **Date Received** |
| part 1 | …….. Baht | …/…/… | …….. Baht | …….. Baht |
| part 2  (for 12 months) | …….. Baht | …/…/… | …….. Baht | …….. Baht |
| Total | **…….. Baht** |  | **…….. Baht** | **…….. Baht** |

*\* Note: Please specify the budget received per installment by referencing the attached budget utilization plan in the contract. If it is an integrated plan, please summarize the financial report of the entire project in the main project's progress report.*

**11.2 Operational Expenditures and Next Installment Requested (Unit: Baht)**

| **Budget Category** | **Total Project Budget**  **(1)** | **Total Received to Date**  **(2)** | **Total Actual Expenditure**  **(3)** | **Remaining Balance**  **(2)-(3) = (4)** | **Next Installment Requested (part 2)**  **(5)** |
| --- | --- | --- | --- | --- | --- |
|
|  |
| 1. Remuneration for Project Leader  (Monthly allowance, THB 65,000 per month for post-doctoral researchers who have received the China-Thai Talent and Research Exchange Fellowship) |  |  |  |  |  |
| 2. Travel expenses for overseas trips  2.1 Flight ticket  2.2 Health insurance |  |  |  |  |  |
| **Total Budget** |  |  |  |  |  |

*Note: If it is an integrated plan, please summarize the financial report of the entire project in the main project's progress report.*

**11.3 Remaining balance is ................... % compared to the budget received.**

***Note: If budget utilization is less than 70% of the budget installment, please clarify the reasons.***

**11.4 Proposed budget for the next instalment (budget part 2) amounting to ………………………………… Baht.**

*Signature………………………………………*

*(……………………………………….)*

*Institutional Financial Officer or*

*Project Financial Administrator*

*Authorized Signatory*

*Signature ………………………………………*

*(……………………………………….)*

*Project Leader*

**12. References**

*(Description: Please list the source documents used in the preparation or referencing of the research report.)*

**13. Appendices**

*(Description: Documents related to the operation or documents to confirm the project's outputs, such as articles/reports that are part of the project's operations, website examples, data or statistics collected from the project, patent or petty patent documents, list of students or teachers participating in the project, appointment of the researcher selection committee, researcher progress reports, etc.)*

**Please attach**

**Appendix A: Curriculum Vitae and experience in the exchange laboratory**

**Appendix B: Confirmation Letter of Researcher’s Laboratory Participation**

**Appendix C: Draft manuscript**

**Appendix D: Product and Process Prototype (Industrial Level)**

**Appendix E: Collaboration Network**

**Appendix F: Others**