Attachment #3

**학업계획 (Study Plan)**

*\* Please type or print clearly within 1 page using black ink. (\*10 points)*

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| Goal of study &  Study Plan | *o Goal of study, title or subject of research, and detailed study plan* | |
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| For taking Master Degree in Korea, thing that I want to research is analyzing word and grammar error in machine translation English to Korean and vice versa. The main goal is finding the word and grammatical error of English-Korean Translator and vice versa to determine the best performance of translator. The area of study for this research is mostly in syntax, semantic analysis, and machine translation of Natural Language Processing. Additional knowledge that needed to study related research area is receiver operating characteristic (performance analysis), transition network, machine learning, and neural network language model.  In pursuing my Master Degree, I plan to finish it within 3 years. Since Korean language is needed for my research, I would focus on study Korean language for 2 semesters (one year) from September 2015. Although I’m focusing study Korean in my 2nd semester, I plan to prepare my research by communicate with my professor. I would like to do it in the last 2 month before finishing Korean study. During my time in Korea, I would like to join some social activity and PERPIKA (Indoneisan Student union in Korea).  For the next six months (3rd Semester), which is September – February 2016, I want to focus on strengthen my fundamental knowledge in my field of study, attend some seminars and conferences (local, national, and international) related my field of study, and reading the strong relevance literature for my research. In next six month (4th Semester), I would like to join some research project on lab for increasing my deepest understanding and implementation of my field of study related my research area. In this 4th semester, I also would learn how to write publishing paper since I never do it before. Then, I would start to do my first publishing paper.  In 5th Semester, I plan to do more publishing paper. I also want to join some conference or seminar related my research area and starts to do my research. In last semester (6th semester), I plan to work hard to finish my thesis and getting my Master Degree. These are my 3 years experience planning that I plan for accomplish Master Degree level in Korea. | | |
| Future Plan  after Study | | *o Future plan in Korea or another country after study in Korea* |
|  | |  |
| After completing Master Degree, I plan to take an internship in mobile Industry/Company in Korea for 1 year. The company such us Samsung or LG would be my concern. If possible, I would like to continue working for one year after internship in mobile company in Korea or other countries. This experience is really fit with my future plan.  After having work experience for 2 years, I plan back to my country to develop machine translation for mobile application in Indonesia. For make it happen, I would apply for being a teaching professor in one of University in Indonesia. My concern to apply is in Hasanuddin University (Unhas). In Unhas, there is a laboratory who develop and research about language machine translation. So, I can do the research over there. To make it more specific, I want to become initiator for build Computer Linguistic Laboratory and research center for mobile development that develop translation language from Indonesia to Korean and other language for mobile application. This is for helping people learn new language easier to access via mobile phone. | | |

Attachment #3

**연구과제 (Research Proposal)**

**\* Please type or print clearly within 1 page using black ink. (\*10 points)**

**※지면이 부족할 경우 별지에 작성하십시오 Please submit additional sheets if more space is needed.**

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| ▣ 연구주제 Research Topic |
| **Analyze Performance of English - Korean and vice versa Translator** |
| ▣ 연구목적 Research Objectives |
| The objective of this research is to recommendate the best performance of English to Korean and vice versa Machine Translator. The research would be determain which translator is more better to use for helping people translating what sentence they want to know while learn Korean language. The research for evaluating English-to-Korean Translator performnace was conducted by **Sungryong Koh and friends** (no time), but that research more focus on the suitable method use to evaluating performance. This research would used that method to focus on evaluating the best performance of machine translation and suggest the best machine translator used in learning process. |
| ▣ 연구내용 Detailed Research Plan |
| * Study Literature of Korean Language * Study literature of fundamantal knowledge * Determine the Indicator and document (sentence) sample for analyzing the performance of machine translator. * Investigate English - Korean or vice versa error in machine translation base on document sample and indicator performance. * Doing validation of Korean and English Translation * Analyzing the result and make the conclution of best machine translation of English-to-Korean and vice versa Translator |
| ▣ 연구방법 Research Methodology |
| To determine the performance of machine translator, this research uses receiver operating characteristic (ROC). The ROC curve uses validation of human to determine whether the result of translation is correct or not through survey validation. The survey of validation would be conducted by giving the question to master of language. The Indicator of performance is Word Error Rate, Grammar Error Rate, and All reference Error Rate found in the result of translation. If the error indicates:   * > 90% from survey = the performance is very bad * 40% - 90% from survey = the performance is bad * 11% – 39 % from survey = the performance is good * < 10 % from survey = the performance is excellence |
| ▣ 연구의 기대효과 Expected Results of the Research |
| This research would be produce the best machine translator recommended to use for learning Korean Language. |
| ▣ 연구일정 Research Timetable |
| See the Research Timeline Attached |

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| --- | --- | --- | --- | --- | --- | --- |
| Detail Research | Timeline | | | | | |
| 1st Semester | 2nd Semester | 3rd Semester | 4th Semester | 5th Semester | 6th Semester |
| Study literatur of Korean Language |  |  |  |  |  |  |
| Study literature of Fundamental Knowledge |  |  |  |  |  |  |
| Determine the Indicator and document (sentence) sample for analyzing the performance of machine translator. |  |  |  |  |  |  |
| Investigate English - Korean or vice versa error in machine translation base on document sample and indicator performance. |  |  |  |  |  |  |
| Doing validation of Korean and English result Translation |  |  |  |  |  |  |
| Analyzing the result and make the conclution of best machine translation of English-to-Korean and vice versa Translator |  |  |  |  |  |  |

**Research Timetable**