

***Dissertation on***

**“Linguistic Analysis of Indo-European Languages”**

*Submitted in partial fulfillment of the requirements for the award of degree of*

**Bachelor of Technology**

**in**

**Computer Science & Engineering**

***Submitted by:***

|  |  |
| --- | --- |
| **Roshan U**  **Sanath Bhimsen**  **Mukesh M Karanth** | **01FB15ECS246**  **01FB15ECS260**  **01FB15ECS361** |

*Under the guidance of*

|  |  |
| --- | --- |
| **Internal Guide**  **Shreekanth M Prabhu**  Associate Professor,  PES University |  |

**January – May 2019**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

FACULTY OF ENGINEERING

**PES UNIVERSITY**

(Established under Karnataka Act No. 16 of 2013)

100ft Ring Road, Bengaluru – 560 085, Karnataka, India



**PES UNIVERSITY**

(Established under Karnataka Act No. 16 of 2013)

100ft Ring Road, Bengaluru – 560 085, Karnataka, India

**FACULTY OF ENGINEERING**

**CERTIFICATE**

*This is to certify that the dissertation entitled*

**‘Linguistic Analysis of Indo-European Languages’**

*is a bonafide work carried out by*

|  |  |
| --- | --- |
| **Roshan U**  **Sanath Bhimsen**  **Mukesh M Karanth** | **01FB15ECS246**  **01FB15ECS260**  **01FB15ECS361** |

In partial fulfilment for the completion of eighth semester project work in the Program of Study Bachelor of Technology in Computer Science and Engineering under rules and regulations of PES University, Bengaluru during the period Jan. 2019 – May. 2019. It is certified that all corrections / suggestions indicated for internal assessment have been incorporated in the report. The dissertation has been approved as it satisfies the 8th semester academic requirements in respect of project work.

|  |  |  |
| --- | --- | --- |
| Signature  Shreekanth M Prabhu  Associate Professor | Signature  Dr. Shylaja S S  Chairperson | Signature  Dr. B K Keshavan  Dean of Faculty |

**External Viva**

|  |  |
| --- | --- |
| **Name of the Examiners**  **1.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Signature with Date**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |

**DECLARATION**

‘We hereby declare that the project entitled **Linguistic Analysis of Indo-European Languages** has been carried out by us under the guidance of Prof. Shreekanth M Prabhu and submitted in partial fulfilment of the course requirements for the award of degree of **Bachelor of Technology** in **Computer Science and Engineering** of **PES University, Bengaluru** during the academic semester January – May 2019. The matter embodied in this report has not been submitted to any other university or institution for the award of any degree.

|  |  |  |
| --- | --- | --- |
| **01FB15ECS246** | **Roshan U** |  |
| **01FB15ECS260** | **Sanath Bhimsen** |  |
| **01FB15ECS361** | **Mukesh M Karanth** |  |

**ACKNOWLEDGEMENT**

**We would like to express our sincere gratitude to our guide Prof. Shreekanth M Prabhu for his continuous guidance and insights he provided throughout the last few months. A lot of the resources he shared with us were really helpful going forward in the project.**

**We would like to express our gratitude towards the project coordinators Ms. Preet Kanwal and Ms. Sangeetha for their constant guidance in every step of our project progress.**

**We take this opportunity to thank Dr. Shylaja S S, Chairperson, Department of Computer Science and Engineering, PES University, for all the knowledge and support I have received from the department. I would like to thank Dr. B.K. Keshavan, Dean of Faculty, PES University for his help.**

**We are deeply grateful to Dr. M. R. Doreswamy, Chancellor, PES University, Prof. Jawahar Doreswamy, Pro Chancellor – PES University, Dr. K.N.B. Murthy, Vice-Chancellor, PES University for providing to me various opportunities and enlightenment every step of the way.**

**Finally, this project could not have been completed without the continual support and encouragement we received from our parents.**

**ABSTRACT**

The goal of this project is to perform linguistic analysis of indo European languages by selecting languages that belong to this family and finding out which is the most central language amongst these languages using Social Network Analysis techniques.

We also compute the similarities between the languages chosen. In our analysis we seek to the show the links between languages as a network rather than the conventional tree structure.

This helps us understand the relationship better at a smaller level of intricacy.

This report contains in it the various references we have used to complete our project, it also contains the scope details, the exploration steps and methodologies we used, the testing approaches and specifications utilized, the outcomes of the project along with the implementation code and finally the conclusion of the project as a whole.