PREFACE

This thesis has been carried out to fulfill the graduation requirements in the Graduate Program Graduation Master in Telecommunication Engineering – Telkom University with the title "Scalability Type of Services Implementation In Passive Optical Network Using Subcarrier Allocation Algorithm".

Foremost, I would to thank to Allah SWT for the blessing so I can give my best effort to this research and finish the thesis on time.

I would like to express my sincere gratitude and thanks to:

1. My advisor Prof. Dr.Ir. Adit Kurniawan, M.Eng and Dr. Ir. Rina Pudji Astuti M.T. for the continuous guidance of my study and research and immense knowledge.

2. Dr. Ir. Rina Pudji Astuti M.T., Apraz S.T M.T, and Chandra Buana Putra S.T for the support to develop research simulation using Matlab.

3. DR. Fiky Y Suratman as Head of Graduate Department for giving me support doing research.

4. The whole team in Graduate Program for the support and encouragement

5. My fellow of S2 PJJ Telkom for the simulating discussions and for all the fun we have had in the last two years.

6. PT Telekomunikasi Indonesia for the scholarship support