

PREFACE

Alhamdulillahirabbil'alamin, praise and deep gratitude for Allah SWT for the guidance given to the author to finish this thesis, entitled: **Low Density Generator Matrix (LDGM)-based Raptor Codes with Optimal Degree Distribution for Single Carrier Internet of Things (SC-IoT)**, as one of requirements for accomplishing Master Degree in The Graduate Program of Electrical-Telecommunication Engineering, The School of Electrical Engineering, Telkom University.

Some of the results of this thesis have been presented at international conference sponsored by IEEE for paper, F. N. Hidayah and K. Anwar, "Low density generator matrix (LDGM)-based Raptor Codes for single carrier Internet of Things (SC-IoT)," in 2017 International Conference on Signals and Systems (ICSigSys), pp. 24-28, Bali, Indonesia, May 2017, and F. N. Hidayah, N. M. Adriansyah, and K. Anwar, "Regular raptor codes based on LDGM with optimal degree distribution for internet of things," in Wireless Personal Multimedia Communications 2018 (WPMC'18), Chiang Rai, Thailand, Nov. 2018. The authors hope that this thesis can provide contribution to science and technology and add insight to the reader, and especially for the writer as well.

The author realizes that this thesis is still far from being perfect, therefore the author expects any constructive criticism and suggestion either indirectly via email fdilahnur@gmail.com or directly. Finally, the author hopes that this thesis is useful for the development of Science and Technology.

Bandung, October 15, 2018

Fadilah Nur Hidayah