



DEPARTMENT OF  
ELECTRICAL COMMUNICATION  
ENGINEERING  
INDIAN INSTITUTE OF SCIENCE  
BANGALORE 560012

विद्युत संचार इंजीनियरिंग  
विभाग  
भारतीय विज्ञान संस्थान  
बेंगलूरु - 560012



8 November, 2019

Dear Student,

Congratulations on being selected to be interviewed for admission to the PhD programme at ECE, IISc. Our department is one among the top ECE departments in the country with faculty members that have rich academic and industry experience from leading universities and companies. The PhD programme at ECE, IISc, gives the student an opportunity to solve challenging problems that will impact the development of future technologies.

You would have received a letter from the IISc Admissions Office inviting you to an interview at IISc during 18<sup>th</sup> and 19<sup>th</sup> November 2019 for admission to our PhD programme. I am writing this letter to inform you about the interview procedure in our department, so that you can prepare well for it.

During this round of admissions, candidates are being considered for admission to PhD programmes only in the following research areas: (a) Communications & Networks, (b) Signal Processing, (c) Microelectronics (d) RF & Microwaves, and (e) Photonics. Upon arrival, you will be asked to indicate your preferences among these research areas, based on your research interests.

All candidates, across all research areas, will be examined on their analytical ability in two of the following areas of basic mathematics:

- Calculus and Differential Equations
- Matrix Analysis and Linear Algebra
- Fourier, Laplace, and z-Transforms
- Probability Theory and Random Processes
- Discrete Mathematics (combinatorics, graphs).

You will be asked to indicate the two areas (among the five listed above) on which you would like to be tested.

The examination will consist solely of an oral interview conducted by faculty from the ECE Department. There will be no written test. In the oral interview, you will be asked some questions on the chosen mathematics topics. The problems posed will not involve lengthy calculations, but will test the basics, and the ability to think "on one's feet". You may also be asked questions in the proposed area of research or any related area. These questions will be from topics of undergraduate study and topics of post-graduate study (as applicable). The interview questions are intended to explore your clarity of thought and depth of understanding of the topics, rather than descriptive system level knowledge.

You should plan to arrive at the ECE Department on or shortly before the reporting time mentioned in the letter you have received from the Admissions Office. Please allow for traffic delays, and for travel within the IISc campus, to ensure that you are at the ECE department main lobby, IISc, at your reporting time.

I look forward to seeing you.

With best wishes,

(A CHOCKALINGAM)

CHAIR

Department of ECE

Indian Institute of Science

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