

TITLE

What I Wish I Knew When I was an Entry-Level Engineer

ABSTRACT

This talk presents useful tips from the experiences of the speaker as an industry engineer for over three decades and as a supervisor for junior engineers and 80+ internship students. Many common problems have been identified in himself, junior engineers, and students, or near-future engineers-to-be, in the daily life of research and development. It was necessary for a supervisor to point out the same problem again and again. It could only be possible to avoid such a repeated and inefficient process by preparing a document of do's and don'ts and having them read through it as a first step. An outcome is this talk. It covers from daily communication with colleagues and bosses, what is good research, importance of intellectual properties, efficient paper writing, good presentation materials, fast and efficient growth, and to carrier building. Each topic is mostly accompanied by examples, and thus, should be useful for young professionals in industry as well as those in academia.

UPDATED BIO

Akihiko Sugiyama (a.k.a. Ken Sugiyama), affiliated with Yahoo! JAPAN Research after 38 years at NEC Corporation, has been engaged in a wide variety of research projects in signal processing such as audio coding and interference/noise control. His team in NEC developed the Silicon Audio, the world's first all solid-state audio player and a precursor of iPod, in 1994. He served as the Chair of Audio and Acoustic Signal Processing Technical Committee, IEEE Signal Processing Society (SPS) [2011-2012], as associate editors for several journals such as IEEE Trans. Signal Processing [1994-1996], as the Secretary and a Member at Large to the Conference Board of SPS [2010-2011], as a member of the Awards Board of SPS [2015-2017], as the Chair of Japan Chapter of SPS [2010-2011], and serves as a member of IEEE Fellow Committee. He was a Technical Program Chair for ICASSP2012. He has contributed to 17 chapters of books and is the inventor of 217 registered patents with more pending applications in the field of signal processing in Japan and overseas. He received 19 awards such as the 2002 IEICE Best Paper Award, the 2006 and the 2018 IEICE Achievement Award, and the 2013 Ichimura Industry Award. He has delivered 141 invited talks in 74 cities of 27 countries. He is Fellow of IEEE and IEICE, a Distinguished Industry Speaker for IEEE SPS [2020-2021], and a past Distinguished Lecturer for IEEE SPS [2014-2015] and for IEEE CES (Consumer Electronics Society) [2017-2018].