

# Collaboration with Companies

## What they want and what they are concerned

A/P Tan Cher Ming

Chair, Industrial Collaboration and  
Publicity, School of EEE

# Does Industrial Interested in collaboration with NTU?

- EEE organized an industrial dialogue, and more than 200 industrial participants attended.
- EEE recently launched a web site [www.ntu.edu.sg/eee-icp/](http://www.ntu.edu.sg/eee-icp/), and with just two weeks, we have more than 1200 visitors (76.4% local) and 32 industrial people subscribe to our web site for e-broadcast.
- There are a total of 28 companies (exclude A\*Star organizations) are presently collaborating with EEE. Total grant is S\$21.0308 millions todate.

# Types of Collaboration the Organization is Interested in

	Most likely	Likely	Unlikely
Exploratory research (application unknown)	11.8%	35.3%	52.9%
Technology development (application known)	16.7%	75%	8.3%
Product design development (technology available application and market known)	17.1%	45.7%	37.2%
Problem solving (specific problem regarding a current product or project in your organization)	24.3%	48.6%	27.1%

# What the Collaborating Organization Hopes to Achieve

	Highly desirable	Desirable	Somewhat desirable	In-different
Contribute to organization's future business	36.8%	36.8%	26.4%	0%
Complement internal expertise	30.5%	52.8%	13.9%	2.8%
Supplement internal capacity	6%	62.8%	1.7%	29.5%
Identify prospective employees	33.3%	39.4%	21.2%	6.1%

# Administration of Collaboration

- While industry is keen on collaboration with universities,
  - only 50% of the surveyed companies have assigned staff to monitor research in universities and to interact with them.
  - 39.5% say no and
  - the remaining 10.5% say not sure.
- This shows the passive side of the industry in Singapore in term of research activities, and universities need to step up its effort in promoting collaboration to the industry.

# Who Should Own the Intellectual Property Rights Arising from Future R&D Collaborations with NTU

	NTU-EEE 100%	Outside Organization 100%	50-50	Other Ratio
Exploratory research (application unknown)	12.1%	21.2%	51.5%	15.2%
Technology development (application known)	0%	44.1%	38.2%	17.7%
Product/software development (application and market known)	3%	69.7%	12.1%	15.2%
Problem solving (specific problem regarding a current product or project in the organization)	3%	70.6%	14.7%	11.7%

# Reasons for Not Collaboration

- IP issues 26%
- No existing ready IP 25%
- Lack of information and window for interaction from university 21%
- Cost issues 20%
- Limited availability of Professors' time 8%

# Case Studies

## ■ SSMC

- A yearly M.Eng scholarship for a consecutive of 3 years.
- Moving toward Ph.D scholarship
- Technology Development

## ■ ST Microelectronics

- Two Ph.D scholarship last year
- Target for 10 Ph.D scholarship for the next 3 years.
- Exploratory research

# Thank you