

Being entrepreneurial at the faculty level The Case of ITB-Indonesia

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Dialogue on Innovative
Higher Education Strategies

HRK German Rectors' Conference
The Voice of the Universities

Entrepreneurial

✓ Entrepreneurship (Gulbrandsen, 2009)

linkages to industry and knowledge/technology transfer

also in education, fundamental research, organization and management issues



Röpke, 1998

1. The university itself, as an organization, becomes entrepreneurial.
2. The members of the university -faculty, students, employees- are turning themselves somehow into entrepreneurs.
3. The interaction of the university with the environment, the “structural coupling” between university and region, follows entrepreneurial patterns

Etkowitz *et al* 2000

Higher education institution that plays an enhanced role in innovation and economic growth

Faculty entrepreneurial activities (Klofsten and Jones-Evans, 2000)

- Faculty as entrepreneurs:
 1. large-scale science projects funded through public grants or industrial sources;
 2. research contracted to solve specific problems;
 3. consulting or the sale of personal expertise directed towards the resolution of identifiable problems;
 4. patenting/licensing;
 5. the formation of new firms or organizations to exploit the results of academic research;
 6. external teaching;
 7. commercial selling of research products; and
 8. provision of testing and calibration services to external entities.

Entrepreneurial activities–ITB Research-Discovery->linkages to industry (Revenue Generating Activity)

Entrepreneurial faculty: good research and entrepreneurial mindset



Gede Suantika:
Recirculation aqua culture system (shrimp industry)

Gede Wenten: Membrane Technology

400 publications
15 Commercialized Patents,
Including US Patent, some companies.

Energy

ITB's Catalyst for Green Fuels Production Gains Praise from Government

The government of Indonesia highly appreciates Bandung Institute of Technology (ITB) for its achievement in developing catalyst to convert crude palm oil (CPO) into green fuels.

Sep 6, 2019 10:49



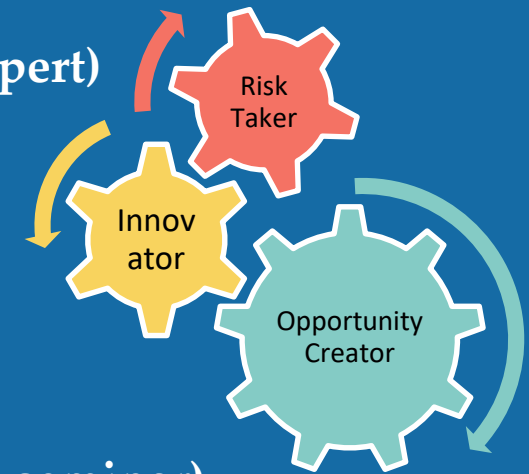
Synergizing with ITB and Pupuk Kujang, Pertamina Signs Joint Venture National Catalyst Factory

2020-07-29 18:49:00 news-release 239

Jakarta, July 29, 2020 - Pertamina, together with Institut Teknologi Bandung (ITB) and PT Pupuk Kujang, made a new history by signing a joint venture to build the first national catalyst factory in Indonesia. It was held in Aula Barat, Institut Teknologi Bandung (ITB), West Java, on Wednesday (7/29). The signing was carried out by President Director of Pertamina, Nicke Widyawati, Plt. President Director of PT Pupuk Kujang, Rita Widayati, and President Director of PT Rekacipta Innovation ITB, Alam Indrawan.

Starting an Entrepreneurial Venture: Building Trust and Establishing a Professional Image

- Solid expertise-experience in a particular field (acknowledged as an expert)
- Visibility on line
- Active in professional organization/association, including publication
- Participate in various activities related to a particular industry (training, seminar)
- Visit the industry: communication with industry, building trust, understanding different interest (NDA, IPR)



Challenges in the Faculty

Responses to commercial opportunities

Academic Leader's role : maximize the advantages
and minimized the downsides

Paradigm shift

- “traditional” faculty
→ entrepreneurial faculty or combination of both

Conflict of commitment (university and/or industry?) : be a faculty and be an entrepreneur at the same time?

Experience with MNCs and NCs



- 1. Discussion with their experts (head office) about the nature of the project (mostly scientific aspects)
- 2. Contract/Goods and Services Supply agreement: provision of services, remuneration, ownership of results, confidentiality, data protection, law and jurisdiction, term and termination, etc.
- 3. Policy at ITB: Entrepreneurial activities contribute to institutional development funds/income for university.
- 4. A good research team, including a manager

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Development of Fipronil Gel Bait Against German Cockroaches, *Blattella germanica* (Dictyoptera: Blattellidae): Laboratory and Field Performance in Bandung, Indonesia

Intan Ahmad and Suliyat

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ABSTRACT

The present study was conducted with the aim to develop an easily made fipronil insecticidal

Relevant research results :
commercialized or patented:
example for (possible) commercialisation
Cockroach bait

Marsel <yohan_marselinus@yahoo.com>

to intan@itb.ac.id ▾

Dear Prof. Ahmad Intan,

My name is Marsel. I am writing this email because I am interested in your paper: Development of Fipronil Gel Bait Against German Cockroaches.

I am especially interested in developing a commercial residential bait based on the result of your research.

I would like to talk more about the results of your research and I was wondering if we can arrange sometime to meet.

Despite your busy schedule as a professor, I really appreciate your time and consideration.

This is my linkedid profile: <https://www.linkedin.com/pub/yohan-marselinus/a2/365/844>

I am also an active member of the following NPO: <http://enjinianusantara.com/> (this Japan-based organization helps Indonesian industry start up to grow)

Greetings Professor Intan Ahmad ☺

서기덕 kdsbsb@nate.com via itb.ac.id

to intan ▾

Good day professor Intan Ahmad,

I am Ki-Duk Seo working for a korean pesticide company "Kukbo Science, Co. Ltd."

I have read your publication "Development of Fipronil Gel Bait Against German Cockroaches, *Blattella germanica* (Dictyoptera: Blattellidae): Laboratory and Field Performance in Bandung, Indonesia" published in 2011 at the Journal of Entomology.

In your publication we've found cow blood, chicken liver, honey-banana and cockroach feces.

Are there any other attractants of your choice you could recommend?

I would appreciate for some piece of advice in this topic.

Thanks in advance for your response and best regards,
Dipl.-Chem. Ki-Duk Seo

Thu, Dec

Research Results: Internet of Thing (IoT) Surveillance, analysis and management of dengue vector

Patent Registration: smart mosquito eggs trap (iot-based):



Oviposition trap IoT node, to monitor the dengue mosquito, sends the results to the cloud to be analyzed using AI and also to be displayed on the dashboard

FORMULIR PERMOHONAN PENDAFTARAN PATEN INDONESIA APPLICATION FORM OF PATENT REGISTRATION OF INDONESIA			
Data Permohonan (Application)			
Nomor Permohonan Number of Application	: P00202007473	Tanggal Permohonan Date of Submission	: 12-Oct-2020
Jenis Permohonan Type of Application	: PATEN	Jumlah Klaim Total Claim	: 5
		Jumlah halaman Total page	: 8
Judul Title	: ALAT PERANGKAP TELUR NYAMUK AEDES AEGYPTI DENGAN FITUR INTEGRASI		
Abstrak Abstract	: Invensi ini berhubungan dengan fitur integrasi dengan fitur in khusus agar sesuai dengan mempertimbangkan aspek perawatan, serta kesesuaian penyusunan perangkat lunak sebagai tempat untuk untuk menaruh perangkat dipasangnya kertas saring merekatkan kertas saring menghubungkan bagian transparan yang didesetutup belakang perangkat IoT integrasi, serta per integrasi di dalam per		
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Permohonan PCT (PCT Application)			
Nomor PCT PCT Number	:		
Tanggal PCT PCT Date	:		
Pemohon (Applicant)			
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Institut Teknologi Bandung	Divisi Hal Lembaga dan Kewil Teknolog		

FORMULIR PERMOHONAN PENDAFTARAN PATEN INDONESIA APPLICATION FORM OF PATENT REGISTRATION OF INDONESIA			
Data Permohonan (Application)			
Nomor Permohonan Number of Application	: P00202007851	Tanggal Permohonan Date of Submission	: 22-Oct-2020
Jenis Permohonan Type of Application	: PATEN	Jumlah Klaim Total Claim	: 2
		Jumlah halaman Total page	: 8
Judul Title	: ALAT PERANGKAP TELUR NYAMUK AEDES AEGYPTI BERBASIS BAR DIGITAL		
Abstrak Abstract	: Invensi ini berhubungan dengan metode untuk menghitung jumlah telur nyamuk Aedes aegypti dengan menggunakan metode pemrosesan gambar digital. Metode pemrosesan gambar yang dilakukan yaitu: memuat berkas gambar substrat berbahan kertas saring yang telah telurnya ke dalam kode program bahasa pemrograman untuk memotong berkas gambar untuk mendapatkan bagian dimana telur nyamuk berada. Ruang warna berkas gambar dari RGB (Red, Green, Blue) menjadi nilai (Value) dan diambil bagian value untuk dianalisa di proses pemrosesan bagian latar belakang dari gambar dengan menerapkan fitur threshold, mengubah gambar menjadi format hitam putih, dimana gambar menjadi hitam, dan objek yang terdeteksi berwarna putih; objek derau berupa titik-titik kecil yang masih terdeteksi dengan diameter kurang dari 2 pixel dengan lingkaran berwarna hitam, jika warna pada objek yang tersisa dan kemudian menghitung jumlah objek yang terdeteksi, dan kemudian menampilkan hasil perhitungan jumlah objek yang terdeteksi.		
Penemu (Inventor)			
Nama (Name)	Warganegara (Nationality)	Alamat (Address)	Surel/Telp. (Email/Phone)
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Take home message:

- The Impact of Research Findings and Faculty Expertise: Benefits for Industry, Government, and Other Entities
- **Balance the interest:**
 - **University, faculty/investigator and industry**
- **Understand each other's role and work together**