Отчет по командировке в Индонезию 05-16 января 2014

И.Л.Лившиц

Введение

Концепция международной деятельности в рамках Программы 5 в 100 ставит своей целью превращение НИУ ИТМО в университет международного уровня, занимающего лидирующие позиции по всем приоритетным направлениям своей деятельности.

Основным инструментом достижения цели является: интернационализация научной, образовательной и коммерческой деятельности университета.

Интернационализации представляет собой сложный многозвенный процесс и требует четкого взаимодействия различных служб университета.

Этот процесс имеет 2 тесно связанные «фазы» – внешнюю и внутреннюю.

Внешняя фаза предполагает наличие в университете активно путешествующей «команды», нарабатывающей связи и создающая международную сетевую структуру НИУ ИТМО.

Внешняя «фаза»: Этот «передовой отряд» должен состоять из ученых, уже имеющих имя, репутацию и свою собственную сеть международных контактов за рубежом. Если эти сотрудники университета будут достаточно информированы о деятельности всего университета в целом – их эффективность повышается, поскольку, развивая связи непосредственно в своей предметной области, они одновременно укрепляют международные связи всего университета и обеспечивают положительный имидж НИУ ИТМО.

Внутренняя «фаза» заключается в поддержке «передового отряда» внутренней инфраструктурой университета:

- финансовой (оплата поездки);

- информационной (предоставление материалов об университете).

Результатами такой деятельности будут:

- формирование и укрепление мировой известности ИТМО;

- расширение международных связей, приток зарубежных студентов, аспирантов и профессоров:

- увеличение числа международных проектов;

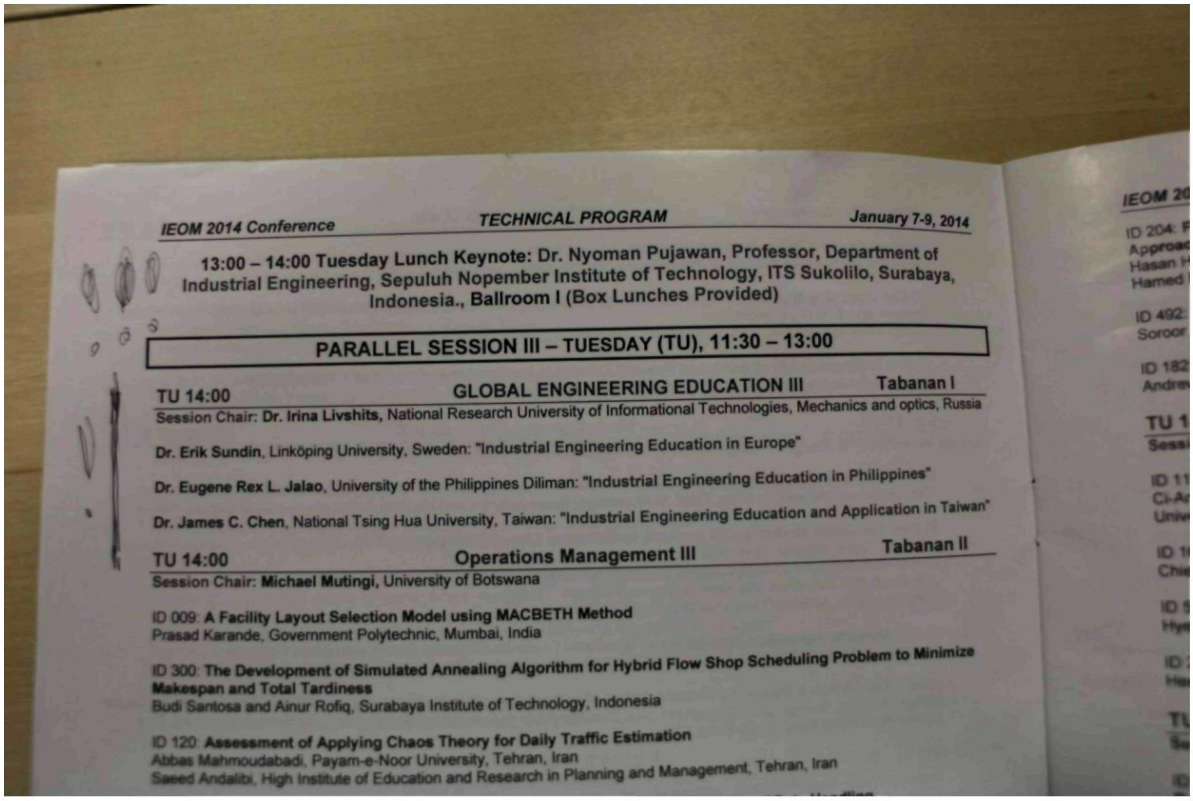
- повышения рейтинга ИТМО и приближение университета к цели – 5 в ТОП-100.

1.Конференция

4th International conference on Industrial Engineering and operations management (IEOM2014) – 7 – 9 января 2014 г.

	
welcome	Сертификат, подтверждающий посещение конференции

	
Обложка программы	Сертификат – благодарность за проведен сессии



IEOM 2014 Conference — TECHNICAL PROGRAM — January 7-9, 2014

13:00 – 14:00 Tuesday Lunch Keynote: Dr. Nyoman Pujawan, Professor, Department of Industrial Engineering, Sepuluh Nopember Institute of Technology, ITS Sukolilo, Surabaya, Indonesia., Ballroom I (Box Lunches Provided)

PARALLEL SESSION III – TUESDAY (TU), 11:30 – 13:00

TU 14:00 — GLOBAL ENGINEERING EDUCATION III — Tabanan I

Session Chair: **Dr. Irina Livshits**, National Research University of Informational Technologies, Mechanics and optics, Russia

Dr. Erik Sundin, Linköping University, Sweden: "Industrial Engineering Education in Europe"

Dr. Eugene Rex L. Jalao, University of the Philippines Diliman: "Industrial Engineering Education in Philippines"

Dr. James C. Chen, National Tsing Hua University, Taiwan: "Industrial Engineering Education and Application in Taiwan"

TU 14:00 — Operations Management III — Tabanan II

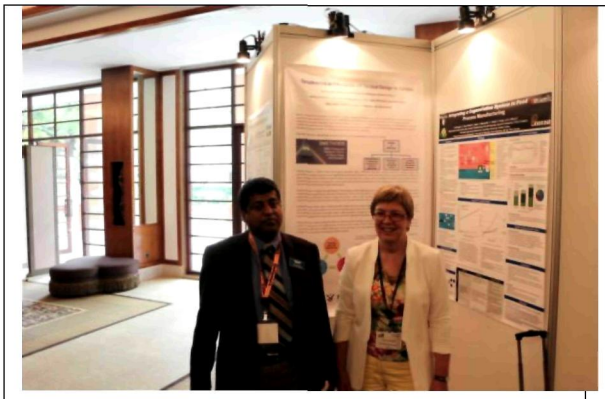
Session Chair: **Michael Mutingi**, University of Botswana

ID 009: **A Facility Layout Selection Model using MACBETH Method**
Prasad Karande, Government Polytechnic, Mumbai, India

ID 300: **The Development of Simulated Annealing Algorithm for Hybrid Flow Shop Scheduling Problem to Minimize Makespan and Total Tardiness**
Budi Santosa and Ainur Rofiq, Surabaya Institute of Technology, Indonesia

ID 120: **Assessment of Applying Chaos Theory for Daily Traffic Estimation**
Abbas Mahmoudabadi, Payam-e-Noor University, Tehran, Iran
Saeed Andalibi, High Institute of Education and Research in Planning and Management, Tehran, Iran

Ирина Лившиц проводит сессию по глобальному инженерному образованию 8 января 2014 года.

	
У стендового доклада “Tendencies in education in Optical Design in Europe” с Ahad Ali, председателем конференции.	У стендового доклада “Tendencies in education in Optical Design in Europe”.

Визитки университета Восточной Явы г. Сурабая, полученные на конференции.

Визитки участников конференции

Визитки участников конференции.

Итоги:

1. Публикация
2. Паблик релейшн
3. Новые контакты
4. Конкретной выход на новый университет-партнер.

Tendencies in Education on Optical Design in Europe

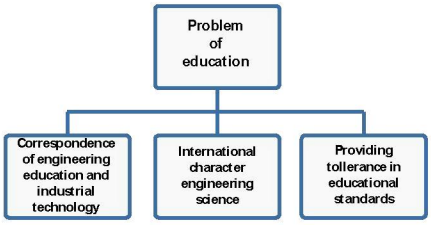
Irina Livshits, Marina Letunovskaya, Ilya Mimorov, Vladimir Vasilyev,

National Research University of Informational Technologies, Mechanics and optics, Russia

Paul Urbach, Delft University of Technology, the Netherlands

Abstract: Tendencies of international cooperation in engineering education became very visible during recent years. We demonstrate this statement on two currently running EU projects SMETHODS and ADOPSYS in the field of optical design, which is an important part of engineering education in photonics. These examples show the importance of the input from different countries and organizations - both from industry and academia. Seven universities and eight optical companies are involved in the project ADOPSYS. Sharing experience of Academia education activity we provide new international type of education "free-of borders".

Keywords: Education, optical design, photonics, hands-on training, globalization, innovation, e-learning.

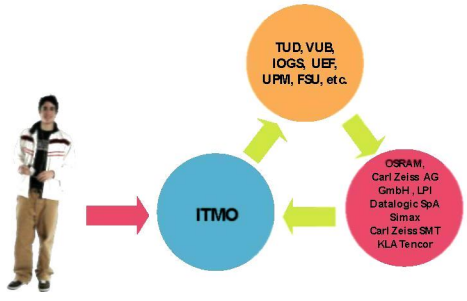


Training domain 1*: *Optical Design for Imaging: geometric optics, di raction, aberration reduction. Hands-on training in design and optimization of optical imaging systems supported by a theoretical introduction. At the end of the session, trainees will be able to specify an optical imaging system, propose the general layout, and understand the methods used to characterize its performance. On simple systems, they will be able to select a starting point, run the optimization and estimate tolerances. On more complex cases, including for their own needs, they can interact efficiently with highly skilled experts.

Training domain 2*: *Design and optimization of non-imaging optical systems. Hands-on training in design and optimization of optical non-imaging systems supported by a theoretical introduction. At the end of the session, trainees will be able to specify light sources and optical components for illumination systems, energy concentration systems, light coupling and other non-imaging optics. They will have a good understanding of the applicable physical limitations and a personal experience in the use of at least one of the relevant software tools.

Training Domain 3*: *Wave Optics: Modeling for Micro Optics and Laser Systems. Hands-on training of modeling and design of laser systems and micro-optics with special emphasis on the inclusion of wave optical phenomena. At the end of the sessions, the trainees will be able to perform the modeling of coherent and partially coherent light propagation through lens and micro-optical systems and to analyze and design such systems for example for focusing, light coupling, laser beam shaping and homogenization, interferometry, and polarization optics.

Training Domain 4: Optical Design for Di ractive Optics. Hands-on training in design and optimization of diffractive optics elements of different scales for imaging and non-imaging systems. At the end of the session, trainees will understand the applicability and limitations of different computational diffraction models. Furthermore, trainees will learn to formulate optimization problems in diffractive optics, will learn methods to obtain an initial design and methods for optimizing these.



Scienti celite of Europe

1.Livshits, P. Urbach Marie Curie Initial Training Networks call, ADOPSYS, FP7-PEOPLE-2013-ITN, 2012

2.Livshits, P. Urbach SMEs Training and Hands-on in Optical Design and simulation, FP7-ICT-2011-1, Project Application, 2011

3.Livshits, Simple method for computer-aided lens design with the elements of artificial intelligence. Proc. SPIE, 1780 (1992)

4.F. Bociort, E. van Driel and A. Serebriakov, Networks of local minima in optical system optimization, Optics Letters 29, 189-191 (2004)4 The Saddle Point

5.J.C. Miñano, P. Benítez, L. Wang, J. Infante, F. Muñoz, A. Santamaría. "An application of the SMS method for imaging designs". Optics Express, Vol. 17 pp. 24036-24044 (2009)

3. Посещение университета
Sepuluh Nopember Institute of Technology

	С проректором профессором Дарминто.
	С сотрудниками иностранного отдела.

	Подарочные часы
	Подарочная флешка с информацией об университете.

Здание РЕКТОРАТА

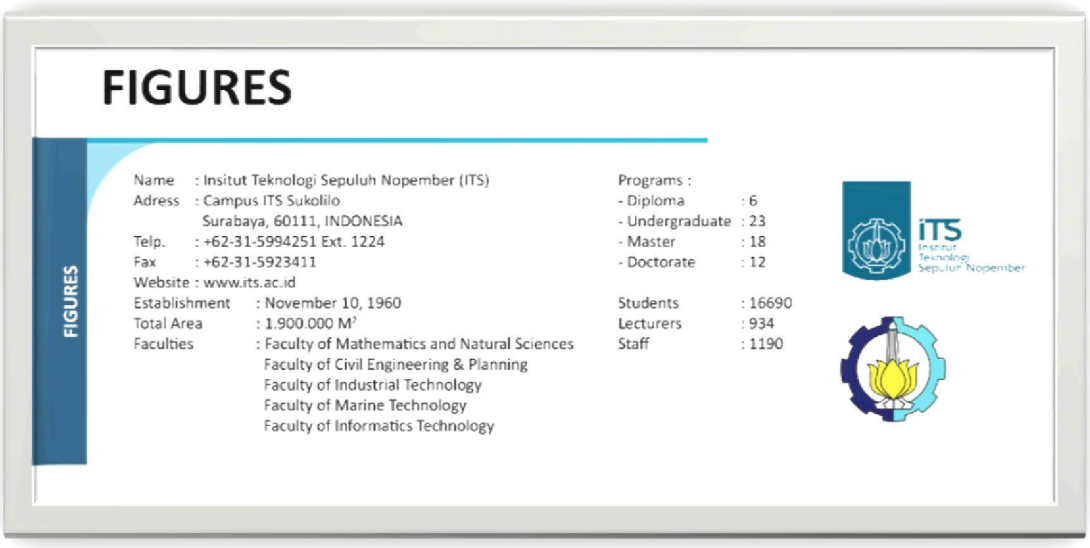
Sepuluh Nopember Institute of Technology

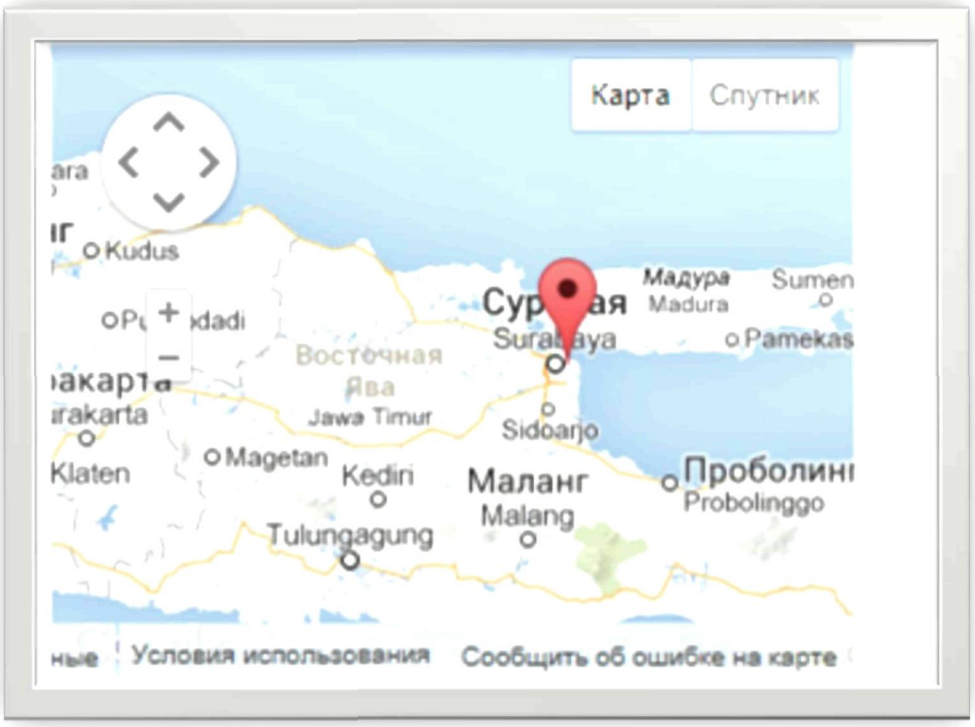
В 2012 г. Webrometrics назвала этот университет лучшим в Индонезии и 19-тым в Азии.

Overview

Institut Teknologi Sepuluh Nopember, commonly abbreviated as ITS, was founded as the yield of the conference of Indonesian Engineering Council in 1954 in Bogor. The idea was further developed when the Council held the first five-year anniversary in Surabaya in 1957. Then, the East Java Branch of the Council decided to establish a Foundation of Technical School or University on the 17th August chaired by dr. Angka Nitisastro. On the 17th August 1957, the Foundation officiated the Technical School of Sepuluh Nopember Surabaya. The school was officially inaugurated by President Soekarno, the first President of Indonesia, and had two departments, i.e., civil and mechanical engineering. The status of the Technical School was later altered to a state technical school in Surabaya under Government Regulation No. 9/1961 dated 23rd March 1961 which stated the birth of the Institute on 10th November 1960. ITS is currently taking serious steps to become a university with international accreditation. It has the objective of preparing to be in the 100 Asianï¿½s best universities or in the 500 Worldï¿½s best universities. The institution is currently adopting a new paradigm by executing sequential acceleration to realize an economic development university (EDU), whilst at the same time, strengthening the foundation of reputable teaching and research university. The Institution has contributed for many community works. In 2005 its creation of houses for

Tsunami tidal wave victims in Aceh Province. In cooperation with the East Java Province Government and business community, the Institution has managed to submit 1000 makeshift houses for the victims. It also dedicated prototypes of small boats to fishermen in Aceh and neighbouring areas. ITS manages five faculties, i.e., Faculty of Mathematics and Natural Sciences, Faculty of Industrial Technology, Faculty of Civil Engineering and Planning, Faculty of Marine Technology, and Faculty of Information Technology. It also manages two state polytechnics, i.e., Electronic State Polytechnics and Shipbuilding State Polytechnics. ITS offers 76 study programs consisting of 6 doctorate study programs (S-3), 13 master study programs (S-2), 22 undergraduate study programs (S-1), 4 programs of four-year diploma of polytechnic (D-4), 6 programs of three-year diploma (D-3), and 8 programs of three-year diploma of polytechnic (D-3). Up to April 2008 ITS had 14,181 students, supported by 923 lecturers with the qualifications of 191 BSc, 464 masters and 175 doctors, among others, are 72 professors.





Расположение университета Sepuluh Nopember Institute of Technology

5. Другие известные университеты в Индонезии

5.1. University of Indonesia

Being the oldest state-run university in Indonesia with more than 160 years of experience in education, Universitas Indonesia has been contributing numerous influential achievements to the sustainable development of the nation by committing to education and research. Since its affirmation of establishment in 1950, UI has continued to grow and flourish. In the recent years, Universitas Indonesia began a significant reform in order to strive for the excellent education with global outlook, attracting more than 30.000 Indonesian and international students in line with the universityâ©¢s mission to be a world-class research university. Universitas Indonesia prided its reputation by strengthening its position in the first place among universities in Indonesia, ranked 34 among universities in Asia (The Times Higher Education Supplement 2009) and ranked 201 among universities in the world (Times Higher Education Supplement in 2009). Universitas Indonesia offers vocational and bachelor degrees in its undergraduate programs. Offering 53 bachelor degree programs in 12 Faculties, Universitas Indonesia is rich with degree options for local and international talents, fostering their readiness to face the global challenges. In more global point of view, Universitas Indonesia has been developing mutual partnerships with many reputable overseas universities in excelling International Undergraduate Double Degree Programs, which enable the graduates to obtain two degree awards, one from Universitas Indonesia and the other from the partner university. Universitas Indonesia has collaborations with the University of Melbourne in Medical Doctor,

Economics, Accounting and Management; with Monash University in Metallurgy & Material Engineering and Chemical Engineering; with the University of Queensland in Psychology, Computer Science, Economics, Accounting and Management; with Queensland University of Technology in Civil Engineering, Mechanical Engineering, Electrical Engineering, and Architecture; with University of Tilburg in Economics, Accounting and Management; with University of Amsterdam in Economics, Accounting and Management. The students will also have the opportunities to experience multi-cultural exposure by joining student exchange and study abroad programs to more 165 partner universities in 35 countries around the world.

5.2. Bandung Institute of Technology (ITB)

Institut Teknologi Bandung (ITB), was founded on March 2, 1959. The present ITB main campus is the site of earlier engineering schools in Indonesia. Although these institutions of higher learning had their own individual characteristics and missions, they left influence on developments leading to the establishment of ITB. In 1920, Technische Hogeschool (TH) was established in Bandung, which for a short time, in the middle forties, became Kogyo Daigaku. Not long after the birth of the Republic of Indonesia in 1945, the campus housed the Technical Faculty (including a Fine Arts Department) of Universitas Indonesia, with the head office in Jakarta. In the early fifties, a. Faculty of Mathematics and Natural Sciences, also part of Universitas Indonesia, was established on the campus. In 1959, the present lnstitut Teknologi Bandung was founded by the Indonesian government as an institution of higher learning of science, technology, and fine arts, with a mission of education, research, and service to the

community. Government Decree No. 155/2000 pertaining to The Decision on ITB as Legal Enterprise (Badan Hukum) has opened a new path for ITB to become autonomous. The status of autonomy implies a freedom for the institution to manage its own bussiness in an effective and efficient way, and to be fully responsible for the planning and implementation of all program and activity, and the quality control for the attainment of its institutional objective. The institution has also freedom in deciding their measures and taking calculated risks in facing tight competition and intense pressures. Bandung, with a population of approximately one and a half million, lies in the mountainous area of West Java, at an altitude of 770 meters. The ITB main campus, to the north of the town centre, and its other campuses, cover a total area of 770,000 square meters.

6. Выводы и рекомендации

Командировка работает на:

1.Увеличение объемов и структуры образовательных услуг, предоставляемых нашим Университетом;

2. Увеличение доли и количества иностранных студентов в общей численности студентов, обучающихся по образовательным программам;

3. Расширение географии приема на Восток;

4. Увеличение доли и количества иностранных студентов, обучающихся в магистратуре, аспирантуре и докторантуре;

5.Увеличение доли и количества иностранных студентов, обучающихся на иностранных языках;

6. Повышение качества отбора иностранных граждан, поступающих на обучение;

7. Укрепление межвузовских и международных связей, расширение информационно-коммуникационной инфраструктуры распределенной международно-ориентированной среды;

8.Установление тесного сотрудничества и договорных отношений с признанными университетами мира, имеющими обширные международные связи и осуществляющими расширенную подготовку иностранных студентов и аспирантов, с целью интенсивного академического обмена студентами, преподавателями и научными работниками, а также с целью совместной подготовки специалистов на уровне магистратуры и аспирантуры;

9.Ориентацию на международную аккредитацию программ высшего образования;

10.Обеспечение студенческой мобильности в процессе обучения;

11. Сетевое взаимодействие университетов, реализация совместных образовательных программ, программ двойных дипломов;

12. Поддержка международной академической мобильности научно-педагогических кадров, особенно - аспирантов и молодых ученых.

Рекомендую продолжить начатое мной сотрудничество с университетом - Sepuluh Nopember Institute of Technology, особенно в сфере информационных технологий и робототехники, возможно, урбанистики.