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- Telecommunication Science
- Applied Statistics
- Technology Management

(Continued on inside back cover)
Abstracts of Scientific Papers

Presented by the Staff of

Assumption University

at

International Scientific Meetings

From July 2007 to June 2008

Prepared and published by

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Preface

Being an institute of higher learning, and the first international university in Thailand, Assumption University has a definite policy to provide quality instruction to the students, both undergraduates and graduates, and both Thai and foreign nationals. An equally important function of the University is to conduct research in all fields.

Assumption University is one of the leading universities in the field of science and technology. During the past year, several of our faculty members participated in various international meetings held in Thailand and abroad; many have also presented their papers at these meetings. The Management of Assumption University is proud of their performance and achievements.

To display and maintain a record of their endeavors and achievements, and to encourage other faculty members to make similar contributions, all abstracts of scientific papers presented at the international scientific meetings during this one-year period from 1 July 2007 to 30 June 2008 has been compiled and published for distribution to interested individuals and institutions. The present publication is the tenth issue of the series of the AU Abstracts, published annually. The first one, ‘AU Abstracts - 1999’ was published in September 1999, covering the presentation period from May 1998 to June 1999. Subsequent publications of the series were published in July covering a period from July of the previous year to June of the next year.

Originally, the Office of the AU Journal of Technology who initiated this publication, was charged with the responsibility to cover the activities of five ‘technology based’ faculties and schools, namely: School of Architecture, Faculty of Biotechnology, Faculty of Engineering, Faculty of Nursing Science, and Faculty of Science and Technology. As a few other faculties and schools also presented a number of ‘technological’ papers, they too are included in this publication.

It is hoped that this small publication would be of some benefit to our readers and that it will serve a dual purpose, relaying information, as well as an encouragement to all the faculty members of the ‘technology based’ faculties and schools. It is our desire to continue to present this particular series and publication every year.

On behalf of Assumption University, I wish to express my sincere thanks to Dr. Narong Chomchalow, Editor of the AU Journal of Technology, for his initiative, as well as hard work in compiling, overseeing, and preparing the manuscripts of the AU Abstracts - 2008. I also wish to thank Dr. Dobri Atanassov Batovski, Deputy Editor of the AU Journal of Technology, who assisted in editing the manuscripts of this publication.

Dr. Bancha Saenghiran, FSG
President, Assumption University
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Floating Markets: The Tide of Amphibian Identity

Prin Jhearmaneechotechai

School of Architecture, Assumption University

This paper intentionally illustrates the floating markets, the nautical phenomenon and historic evidence which have reflected the Thai water-based civilization. Thailand’s central floodplain, where the fluvial historic cities and floating markets situated, is a unique sight. This distinct identity is endowed from topography where flood plain has inestimably flourished famous agriculture. Here has once attained her ultimate era with the web of canalization which interconnected four major river including country’s aquatic artery, the Chao Phraya River. Joining the sea at the Gulf of Thailand, there has arisen the Thai social identity, amphibian settlements, aquatic transportation and nautical commerce both domestic and inter-nation.

As linkage over time, the floating markets have tidally undergone the fluxion, transforming from their original settlements, resulting in growth, reaching their apex and later excessive declination. Vigorous transformations into Thai nautical culture deriving from western civilization and colonization, replacement of land transportation, modernization and globalization have repeatedly faded away Thai original tradition. As for the time being, the fatal turning point has come for them to learn how to self-adapt as well as to sustain or to lose in the tide of globalization.

Keywords: Central floodplain, water-based civilization, canalization, floating market, modernization, identity, transformation, tourism, sustainability.


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Full paper requisition: <prinJhr@au.edu>
Faculty of Biotechnology
Faculty of Biotechnology

The 7th International Conference of Food Science and Technology (7th ICFST) (organized by the University of California at Davis and Southern Yangtze University) Southern Yangtze University, Wuxi, China, 12-15 November 2007

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Monascus purpureus: Natural Microbial Inhibitor in Feed

Tharalinee Ua-Arak and Churdchai Cheowtirakul

Faculty of Biotechnology, Assumption University
Bangkok Thailand

Thailand is the world number one exporter of tiger prawn and processed chicken products. Due to the limitation of land, Thai farmers cultivated prawn and chicken at a very high density. As the result, diseases from the sick creatures could be spread from one to the other and end up with an epidemic easily. To prevent this incident, most of the farmers in Thailand had added antibiotic to the feed as a remedy measure to this problem. Therefore the sale value of antibiotic used in feed industry is very high. Almost all of the antibiotics used in Thailand are either synthetic or semi-synthetic antibiotics; when used in the food or feed, they are considering as food additive. Prolong feeding of synthetic antibiotic in animal may lead to the high deposit of antibiotic residue in carcass. There are international standard and regulation for antibiotic residue limit on carcass. Therefore the use of synthetic antibiotic in tiger prawn and chicken industry may cause the rejection of the product from the destination country.

This study intends to explore the antibiotic potential of Monascus purpureus in the inhibition of other microorganisms. M. purpureus has been used to produce red yeast rice and used in Chinese cuisine and as a medicinal food to promote "blood circulation" for centuries. Therefore the use of antibiotic by adding red rice yeast could be considered as "natural" antimicrobial product.

M. purpureus cultures used for this study were: Strain ATCC 16365 from the Department of Food Science and Technology, University of California at Davis, TISTR 3141 from the Thailand Institute of Science and Technology Research, RBC 1.0 and RBC ORG isolated from sufu, a soybean fermented product. The cultures were grown on different concentration of raw material: fresh cassava, cassava starch, and glucose varied from 0.5-2.0% to observe the best antimicrobial property. Antimicrobial property was tested by immersing filter disc in M. purpureus cultures at the interval of 4 to 12 days. The discs were put on spread plates with different bacteria and the occurrence of clear zone was observed after incubation. The result showed that M. purpureus can produce inhibition zone varied from 1.113 cm to 1.284 cm on the plate spread with Bacillus subtilis, Staphylococcus aureus, Micrococcus varians and Serratia marcescens. It was concluded that M. purpureus used for the fermentation of red yeast rice has a good potential to be used as natural antimicrobial growth product for the feed industry.

Keywords: Antibiotic, synthetic, tiger prawn, processed chicken products, red yeast rice, fermentation.

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Published in: -

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Listeria monocytogenes Biofilm Formation

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Bangkok, Thailand

Listeria monocytogenes is a serious cause of food-borne illness. It is widely recognized that recurrent entry of this pathogen into the food system is enhanced by formation of L. monocytogenes biofilms on environmental surfaces. Our objective is to identify the distinct stages of L. monocytogenes biofilm development using a flow cell apparatus and identify genes that are essential for L. monocytogenes biofilm formation. Using bright-field microscopy, we founded that L. monocytogenes biofilm development occurred with four distinguishable stages: (1) single cell attachment to a surface, (2) microcolonies formation, (3) biofilm maturation, (4) detachment/dispersal with a return to planktonic cell growth. A genetic approach was used to identify genes that contribute to biofilm development. Mutants were identified by screening a library of Tn917 mutants using a simple high through-put microtiter plate assay which correlates well with stages 1 of biofilm development. This effort revealed flagella and flagellar-based motility are important for biofilm development under static conditions modeled by the microtiter plate assay. Flagella and flagellar-based motility also influenced bacterial behavior for biofilms generated in flow cells. This particular effort revealed mutants defective for the elaboration of flagella or produced paralyzed flagella displayed reduced initial surface attachment. However, once attached to a surface the flagellar mutants rapidly formed an abnormally thick biofilm. It was hypothesized that extracellular polymeric substance (EPS) was overproduced by the mutants thereby stabilizing the biofilm aggregates. The intensity of staining by Alexa flour ConA, which binds α-D-glucose and α-D-mannose, was greater for biofilms formed by non-flagellated mutants compared to the wild type strain. This data supports the idea that EPS production is greater for L. monocytogenes mutants defective for motility. Our observations suggest an intimate link between flagella/motility and the developmental program controlling L. monocytogenes biofilm genetic networks. This project provides an overview on how L. monocytogenes adheres to an abiotic surface as it may occur in the food processing environment.

Keywords: Bright-field microscopy, microcolonies, planktonic cell growth, microtiter plate, flagellar mutants.

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Vacuum Impregnation of Probiotics in Fruit Pieces

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Bangkok, Thailand

Although probiotics are currently available in mainly dairy products, the interest in the cooperation of the probiotics in other foods has been increasing. The probiotics delivery system apart from dairy products has been concerned in this research aimed to developing probiotic foods by fortifying the probiotics in partially dried fruits using vacuum impregnation technique. Fruit (guava and papaya) pieces were impregnated in a vacuum pressure of 50 mBar with three types of impregnated solutions as extracted fruit juices, 15°Bx extracted fruit juices and 30°Bx extracted fruit juices containing $10^{10}$ cfu mL$^{-1}$ of Lactobacillus casei 01 for 5, 10 and 15 min. After impregnation the fruit samples contained the probiotics around $10^8$ or $10^9$ cfu g$^{-1}$. In addition, the impregnation time and the soluble solid contents of the impregnated solution had affected the vacuum impregnation parameter ($\chi$) and the effective porosity ($\varepsilon$). No changes in volumetric deformation ($\gamma$) of the fruit pieces occurred after impregnation. The soluble solid contents also influenced on the level of probiotics in the products. Too low or too high in solid contents reduced the viable counts of the probiotics. In order to increase the storage stability of the products, the impregnated guava and papaya were dried at 40°C for 36 h and kept at refrigerated temperature for four weeks. The viable cell counts of L. casei 01 in both guava and papaya were approximately $10^7$ cfu g$^{-1}$, which reached the therapeutic minimum level in the dairy products.

**Keywords:** Dairy products, delivery system, vacuum impregnation technique, effective porosity, therapeutic minimum level.

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Faculty of Engineering
International Conference: “Meeting the Growing Demand for Engineers and Their Educators 2010-2020”
*Arabella Sheraton Grand Hotel, Munich, Germany, 9-11 November 2007*

1. Potential Remedies for Improving the Engineering Students’ Learning Strategies at Thailand’s Assumption University
   *Kyi Kyi Tin and Min Aung* .................................................................13
This research was conducted to meet the needs of the Basic Science Department, Engineering Faculty of Assumption University (AU) in Bangkok, Thailand. The goal was to develop an effective teaching-learning program for students and to increase awareness about the advantages and disadvantages resulting from individual teaching quality and teaching style. Established in 1990, the Faculty produces well-qualified engineers that meet with satisfaction among the various stakeholders. On the other hand, the number of new students joining the Faculty has been steadily decreasing. Students drop out in increasing numbers; the caliber of incoming students declines every semester. They pay less attention during lecture sessions and complain of encountering significant difficulty when trying to master and comprehend basic science subjects. Even though AU imposes a strict attendance policy on students, very few come to all classes. Some students enrolled and studied for more than 5 years in order to complete the 4 year program; some studied the same subject between 2 and 3 times before passing. Do these problems indicate that there is something wrong with the existing AU engineering program? Do they indicate a lack of pre-requisite knowledge from the pre-university level? The Basic Science Department, being the core of engineering program, feels that it has the responsibility to find ways and means to alleviate these problems. For those students who didn’t have an adequate background in mathematics and physics, AU offers both pre-physics and pre-calculus classes prior their enrollment in Calculus I and Physics I. The Department introduced tutorial classes for each subject as an initial approach. Lack of students’ enthusiasm made this approach unfruitful. After trying tutorial session for 2 years, lecturers provided tutorial room service for students as a second approach. The outcome is not satisfactory. The third approach was introduced by giving assignments during lecture session. Teaching Assistants correct submitted assignment and explain to their juniors about their mistakes. Majority of the students submitted copied assignment just to get marks from assignment submission. Starting from academic year 2005 one-and-half-hour workshop session for every basic science subject was introduced. Students were divided into small groups and challenging problems were given. Students participated together to solve problems and raised up questions during that time. Students performance data were collected from academic year 2003 to 2006 in terms of mid-term and final examination marks, mean, standard deviation, withdrawal percentage and class percentage. Lecturers were informed about students' performance during departmental meeting time twice per semester. Student performance data were analyzed to produce appraisal reports for individual subjects. It is still early to predict which approach is better than others, as workshop approach was recently introduced starting from academic year 2005. Generally speaking depending on individual lecturers’ method of teaching, in some subject students’ performance is overwhelmingly improved. By the end of this report, participants will be aware of the students' performance on basic science subjects and be able to identify and extract a potentially useful process and program for effective teaching-learning strategy.
that could be adapted for departments seeking to examine or develop additional programs for curriculum development, students’ development and faculty member evaluation.

**Keywords:** Stakeholders, caliber, pre-university, enthusiasm, tutorial, performance, challenging.

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Faculty of Nursing Science
Faculty of Nursing Science

The 7th Annual SEAAIR Conference on “Sufficiency and Sustainability in Higher Education: An Agenda”
Assumption University of Thailand, Suwanabhumi Campus, Bangkok, Thailand, 5-7 September, 2007

1. The Effectiveness Outcomes of Student-Centered Approach Integration in Nursing Leadership and Management Practicum: Case Study in Assumption University Nursing Students
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The Effectiveness Outcomes of Student-Centered Approach Integration in Nursing Leadership and Management Practicum: Case Study in Assumption University Nursing Students

Siriporn Poonruksa and Patra Phuekphan
Faculty of Nursing Science, Assumption University of Thailand

This classroom action research aimed to explore the fourth year Assumption University nursing students’ ideas, synthesize the inquired knowledge and skill, and explore the greatest benefit gained toward the implementation of student-centered approach in Nursing Leadership and Management Practicum at two hospitals. The data derived from three types of document comprising daily activity report; job analysis of unit manager’s and charge nurse’s responsibility reports; and incident case analysis report of forty students, focus group interview of twelve students and instructors’ observation. Generic method of content analysis technique was applied for data analysis. The results showed that nursing students prepared themselves before studying by reviewing contents following instruction guideline. Students gained benefits from this style of teaching by receiving more knowledge than instructors’ expectation, increasing management, analytical, problem-solving, and cooperative skills. But the most important benefit was they knew how to seek for knowledge and constructed it by themselves through CIPPA model which came from instructors changed their roles to be the encourager, facilitator and coach.

Keywords: Classroom action research, daily activity report, job analysis of unit managers’ report, charge nurses’ responsibility report, CIPPA model.


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Office of the President

The International Seminar on “The Economics and Marketing of Tropical and Subtropical Fruits”
Putra World Trade Center, Kuala Lumpur, Malaysia, 16-18 July 2007

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Marketing and Export of Major Tropical Fruits from Thailand

Narong Chomchalow, Songpol Somsri\textsuperscript{1/} and Prempee Na Songkhla\textsuperscript{2/}

Office of the President, Assumption University

Thailand is one of the main producers of tropical fruits in the world. Although most of the tropical fruits produced in Thailand are domestically consumed, many are also exported. In particular, more than 30\% of total production of durian, longan and lychee are exported every year. Thai fruits are popular among importing countries because they are of high quality. The Thai Government has set up a national policy for R&D that focuses quality improvement, economic efficiency, marketing and trade.

The present paper discusses the production, marketing and export of eight major Thai fruits, namely longan, durian, mangosteen, lychee, rambutan, mango, pummelo and pineapple. Domestic and international markets, as well as the strengths and weaknesses of the Thai fruit industry, are also discussed.

**Keywords:** Longan, durian, mangosteen, lychee, rambutan, mango, pummelo, pineapple, fruit industry.


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\textsuperscript{2/} Editor, Home Agriculture Magazine, Bangkok, Thailand.
A recent change in the society structure of the people has resulted in the change of the lifestyle of the people. For example they don't know how to cook and depend on ready-made food. Even if they can cook, it is for their pleasure such as in camping or barbequing during holidays. They have lots of money but little time, as they spend more time in earning money and in traveling. Thus they desire to have highly nutritious food such as food tablet, having “All in One”. They would like to be thin by eating less or even vomiting out after eating, or eat food tablets. As for fruits, they must be new kinds with pleasing appearance and taste good. The fruit producers are facing a number of challenges such as new batch of the consumers will not eat any fruits with supporting information; thus new fruits must act as if they were health clinic, specifying that if you eat one fruit, what would you get in terms of calories, nutrients, vitamins, antioxidants, etc. They should be packed in nice packaging material which looks nice and secure, and has the same quality as advertised.

Characteristics of new generation of fruits include: (i) labeled with nutritional value, such as if you eat a mangosteen fruit, how many grams of sugar, milligrams of antioxidants, units of vitamins A, C, E, K, etc. will you get. (ii) the color must be attractive and appearance unique; for example, durian must have spines, rambutan must have hairs, as no one will want to eat spineless durian or hairless rambutan, (iii) the taste must be pleasing and uniform throughout the season. (iv) the quality must be of premium grade, and (v) packaging material must be appropriate to the produce and must identify itself to the customers that it will keep the produce fresh, with technical data on nutritional value; it should have a brand name which is dependable. It is obvious that it is not easy to sell the fruits now-a-days. It is not enough to show the letter Q or R, or as being organic food. These help only a little. A customer may want to ask what is good about the letter Q, as he wants to have more clear data, from the beginning to the end of the production process.

We should change from doing fruit ‘farming’ to fruit ‘pharming’. In other words, fruit farming should be changed to industrial production of raw material for pharmaceutical products. This means that we produce a fruit of durian, but sell it not as a durian, but as supplement food or health food. We produce a mangosteen, but advertise it as a good source of natural anticancer substance. There are now many newly developed cultivars of fruits which have higher contents of vitamins A, C, E, K, and antioxidants.

**Keywords:** Social structure, lifestyle, sugar, antioxidant, vitamins, minerals.


**Full paper published in:** CDROM of the International Seminar on “Economic and Marketing of Tropical and Subtropical Fruits.”

**Full Paper Requisition:** <narongchc@au.edu>
Introduction 

Introgressive hybridization or introgression is the transfer of genes between two distinct species by the production of viable fertile hybrids. ‘Suthasinobon’ is an introduced day-blooming waterlily identified as *Nymphaea capensis* var. *zanzibariensis*. Together with its selections and hybrids, they are known as ‘Suthsinobon’ complex. Both ‘Suthasinobon’ and its complex are beautiful, aggressive plants and are popular among Thai waterlily growers. They hybridize readily with other *Nymphaea* species in the subgenus *Brachyceras*, including the only native day-blooming species, *Nymphaea nouchali*, known in Thai as ‘Bua Phan’ and ‘Bua Phuean’ which are two forms of *N. nouchali* var. *versicolor*, and ‘Bua Khap’ - *N. nouchali* var. *cyanea*. Evidences of introgression involving ‘Suthasinobon’ complex have been accumulated in the present study. The consequences of introgression are the breakdown of reproductive isolation, the loss of Thai native species of day-blooming waterlilies, and the predominance of mongrels of partially hybrid ancestry closely resemble ‘Suthasinobon’ parent.

**Keywords**: Introgression, *Nymphaea capensis* var. *zanzibariensis*, *N. nouchali* var. *versicolor*, *N. nouchali* var. *cyanea*, Bua Phan, Bua Phuen, Bua Khap.


**Full paper requisition**: <narongchc@au.edu>
Mutation of Stamen and Pistil towards Petal in Lotus and Waterlily

Narong Chomchalow and N. Nopchai Chansilpa 1/

Office of the President, Assumption University

Doubling of lotus and waterlily flowers is caused by mutation of the stamen and the pistil towards the petal. In the case of lotus, there are many stages that the stamen transforms into petal, from petaloid stamen that has anthers and appendages to petaloid staminode that has flattened stamen stalks similar to the petal and aborted anthers, but there appendages still exist, to fully developed petal. This occurs when ‘Pathum’ transforms into ‘Sattabongkot’, or ‘Buntharik’ transforms into ‘Sattabut’. Sometimes there is a simultaneous transformation of the pistil when it emerges from the young torus, which is called ‘bubble’ - a pistilode. In addition, there is a transformation of the pistil towards the petal, from incomplete, i.e. being sterile pistil in petaloid pistilode as in some strain of ‘Sattabongkot’, to transformation of the stamen to perfect petal and the loss of pistil, such as in ‘Manggalapathum’.

In the case of waterlily, there are five stages of transformation of the stamen, namely to: (i) petaloid staminode, as in “Midnight Embers’ and ‘Smoulder’, (ii) petaloid stamen and petaloid staminode, such as in many hardy waterlily cultivars, (iii) small petal, as in ‘Midnight’, ‘Alexis’, and a Thai native waterlily, (iv) perfect petal but with smaller size than normal ones which appear in the outer whorls having similar shape and color with the normal petals, while the pistil still has almost normal structure, but non-functional, as in ‘Chalong Khwan’, and (v) perfect petal and the complete loss of the pistil, as in ‘Chongkonni’.

Doubling of the flower is a backward evolution towards primitiveness, but is desirous by human beings because double flower has larger size, more beautiful, sterile, longer blooming period, and without pollen that causes allergy in some people. Thus, they are selected for planting as ornamental plants or for cut flowers for use in worshipping the Buddha or for flower arrangement.

Keywords: Doubling, petaloid stamen, petaloid staminode, pistilode, petaloid pistilode, ‘Manggalapathum’, ‘Chalong Khwan’, ‘Chongkonni’.


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Graduate School of Psychology
Graduate School of Psychology

International Conference on Building Bridges for Wellness through Counseling and Psychotherapy (ICCP-2008)
Sampurna-Montfort College, Bangalore, India, 9-11 January 2008

1. A Phenomenological Investigation into the Experience of Providing Psychotherapy to the Self-mutilating Patient: An Update
   Christine Bierdrager and Margaretha Schuerman ........................................... 27
A Phenomenological Investigation into the Experience of Providing Psychotherapy to the Self-mutilating Patient: An Update

Christine Bierdrager and Margaretha Schuerman*

Graduate School of Psychology, Assumption University
Bangkok, Thailand

A phenomenological investigation into the experience of providing psychotherapy to the self-mutilating (self-injurious) patient was conducted in the mid-1990s. This methodology was chosen to allow for any issues present within the phenomenon to emerge, free from the constraints of theoretical or other subjective preconceptions. Further, psychotherapy with the self-mutilator has been regarded as challenging due to countertransferential issues, which are difficult to access using more typical empirical tools.

The original subject pool consisted of eight clinical psychologists. A general structure of the phenomenon was ascertained (across the situated structures) and the data gathered supported much preceding research. The key points resulting from the data were that: (a) The attitude of the psychotherapist was an important factor in treatment success; (b) the psychotherapy process centered upon the relationship between therapist and patient above most other considerations; and (c) success was gauged in the client in terms of increased "maturity." Self-mutilation in this sample was differentiated from suicidality and psychosis-related self-injury. In fact, there was support for it being an addictive disorder or its own separate self-harm syndrome, although the Borderline Personality Disorder diagnosis was the most frequently used for these clients. The self-injury was seen as used for both manipulative and communication purposes by the client, and appeared to result in response to both individual psychopathology and environmental stressors.

A follow-up study was conducted approximately 12 years after the original sample was obtained to see if the original findings were supported over time/space. The results were presented at the conference. Although several differences were noted, particularly in emphasis on theoretical orientations, the key finding that carried was that a positive, empathetic stance of the therapist towards the client had the most successful outcomes, as did focusing on the deeper issues that underlie self-mutilating behavior rather than on the behavior itself.

Keywords: Countertranference, counseling, Thailand, Borderline Personality Disorder, theoretical orientation.


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Full Paper Requisition: <cBierdrager@au.edu>

* Ph.D. student of the Ph.D. Program in Counseling Psychology, Graduate School of Psychology, Assumption University, Bangkok, Thailand.
Faculty of Science and Technology
1. Balancing Secondary Traffic Metering for DiffServ Assured Forwarding Classes
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Balancing Secondary Traffic Metering for DiffServ Assured Forwarding Classes

P. Pakdeepinit, T. Yeophantong, P. Chen and P. Santiprabhob

Faculty of Science and Technology, Assumption University

Differentiated services (DiffServ) is being accepted as an architecture that specifies a simple, scalable and coarse-gained mechanism for managing network traffic and ensuring quality of services (QoS) guarantees on modern IP networks. In this study, we look into the DiffServ QoS management of assure forwarding per hop behavior (AF PHB) and propose the balancing secondary traffic metering scheme that is able to effectively share the idle bandwidth originally allocated to some AF flow(s) to the other flow(s) that is/are currently overloading. These excess bandwidths redistribution is to be relatively to the additional bandwidth requirement and the priority of the overloading flow(s).

Keywords: Differentiated services, quality of services, network traffic, idle bandwidth.


Full Paper Requisition: <organ@scitech.au.edu>
Master Degree Programs: (2 years)

Faculty of Biotechnology
• Master of Science in Food Biotechnology - MSFBT

Faculty of Science and Technology
• Master of Science in Computer Science – MSCS
• Master of Science in Telecommunications Science – MSTS
• Master of Science in Telecommunication and Computer Network Engineering – MScTeCNE (Joint program with South Bank University, London, UK)
• Master of Science in Information Technology – MSIT
• Master of Science in Technology Management – MSTecM
• Master of Science in Internet and Multimedia Engineering – MSciME

Graduate School of Arts
• Master of Arts in Philosophy – MAPh
• Master of Arts in Religious Studies – MARS
• Master of Arts in Teaching English as a Second Language – MATESL
• Master of Arts in Teacher Education – MATE?

Graduate School of Business
• Master of Business Administration – MBA
• Master of Science in International Business – MScIB
• Master of Science in Financial Management – MScFM
• Master of Management in Organization Management – MM
• Master of Science in Human Resources – MScHR

Graduate School of Computer Information Systems
• Master of Science in Computer Information Systems – MSCIS

Graduate School of Computer and Engineering Management
• Master of Science in Computer and Engineering Management – MSCEM

Graduate School of Counseling Psychology
• Master of Science in Counseling Psychology – MSCP

Graduate School of Education
• Master of Education in Curriculum and Instruction – MEd
• Master of Education in Educational Administration – MEd

Graduate School of Engineering
• Master of Engineering in Broadband Telecommunications – MEng
• Master of Engineering in Power Electronics – MEng
• Master of Science in Telecommunications Management – MSTM

Graduate School of English Language Teaching
• Master of Arts in English Language Teaching – MAELT

Graduate School of Internet and E-Commerce Technology
• Master of Science in Internet and E-Commerce Technology – MSIEC

Graduate School of Philosophy and Religious Studies
• Master of Arts (Philosophy) – MA (Philosophy)
• Master of Arts (Religious Studies) – MA (Religious Studies)

Graduate School of Tourism Management
• Master of Arts in Tourism Management – MATRM

Doctoral Degree Programs
• Doctor of Philosophy in Computer Information Systems – PhDCIS
• Doctor of Philosophy in Computer Science – PhDCS
• Doctor of Philosophy in Computer and Engineering Management – PhDCEM
• Doctor of Philosophy in Food Biotechnology – PhDFBT
• Doctor of Philosophy in Information Technology – PhDIT
• Doctor of Philosophy in Philosophy – PhDPhilo
• Doctor of Philosophy in Telecommunications and Computer Network Engineering – PhD TeCNE
Assumption University of Thailand

Motto: Labor Omnia Vincit

Philosophy:

In loyalty to its Christian mission, Assumption University stands for:
- the inculcation of respect for the three institutions of the Nation: Religion, Country, the King and a democratic way of life.
- the belief that a man justifies himself and his existence by the nobility of his work.
- the commitment to be a light that leads men towards the true source of all knowledge and life.

Accreditation:

The University is fully accredited by the Ministry of University Affairs. Its graduates enjoy the privileges accorded to State University graduates. Its academic standards are accepted by the Civil Service Commission of Thailand. Assumption University is recognized in the USA and other countries and the transfer of credits from the University are accepted abroad. Graduates from the University can pursue advanced degrees anywhere in the world. Assumption University is listed in the Handbook of Universities and other Institutions of the International Association Of Universities in Paris, France.

The University is recognized by:
- The Association of Christian Universities and Colleges in Asia (ACUCA)
- The Association of Southeast Asian Institutions of Higher Learning (ASAIHL)
- The International Federation of Catholic Universities (IFCU).

Objectives and Policies:

Assumption University exists for the main purpose of serving the nation by providing scientific and humanistic knowledge, particularly in the fields of business education and management science through research and interdisciplinary approaches. To this end it aims at forming intellectual competent graduates who:
- are morally sound, committed to acting justly, and open to further growth.
- appreciate freedom of expression, imbibe right attitudes and ideologies through a careful integrated curriculum of Ethics, Science, Languages and Business Management.
- achieve academic excellence through hard work, critical thinking, and effective decision-making.