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## Obituary



Obituary: Choung M. Lee

Prof. Choung Mook Lee passed away on July 26, 2006 at the age of 73. He was born on Nov. 1, 1933 in Pyungteck, Korea.

Prof. Lee served as the members of ITTC: 20<sup>th</sup> ITTC Quality Group, and 21<sup>st</sup>, 22<sup>nd</sup> and 23<sup>rd</sup> ITTC Executive Committees. Especially he made a significant contribution to the 22<sup>nd</sup> Conference held in Seoul and Shanghai in 1999 as the chairman of the Executive Committee

He attended Seoul National University and received his Bachelor of Science degree in naval architecture in 1958. He went to the United States of America in 1960 and received his Bachelor of Science degree in mechanical engineering from the University of North Dakota. Then he continued his advanced studies at the Departments of Naval Architecture, University of California, Berkeley for his Master's and Ph D degrees in 1963 and 1966, respectively. He worked as a research engineer at the David Taylor Naval Ship R & D Center (DTNSRDC) during 1966-1982. He worked at the Korea Research Institute of Ships and Ocean Engineering (KRISO) in Korea as the vice president on his Sabbatical leave in 1978. He worked as S & T Progress Manager at Office of Naval Research during 1982-1986.

Prof Lee returned to Pohang University of Science & Technology (POSTECH), Korea as a professor of mechanical engineering. He served as the vice president of POSTECH from 1986 to 1991 and also as the director of the Advanced Fluid Engineering Research Center (AFERC), Center of Excellency Program supported by the Government from 1990 to 2005.

He published more than 200 research papers. He supervised 18 master's and doctoral students. His research interests and contributions were significant, lasting and encompassing and covered development of a numerical scheme for the second order free surface wave problems, ship motion problems related to the catamarans and swaths during his early career, and marine environmental problems including oil-spill recovery problems and magneto-hydrodynamics problems during his late career.

He received many awards and citations including the Outstanding Performance Awards in 1972 and 1975 from DTNSRDC and the Outstanding Performance Awards in 1983 and 1985 from ONR. He was also the American Bureau of Shipping- Captain Joseph H. Linnard Prize Recipients in 1975 from the Society of Naval Architects and Marine Engineers by a paper titled "Ocean Catamaran Seakeeping Design Based

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Upon the Experiences of USNS Hayes". Prof. Lee also received the Outstanding Scientific Achievement Award in 1996 and the Best Paper Award in 2004 both from the Society of Naval Architecture of Korea. He received the "Dong-baeg Badge" of National Decoration in 1997 from the Government.

Prof. Lee served as the presidents of the Korea Society of Theoretical and Applied Mechanics (Korean counterpart of IUTAM), the Society of Naval Architecture of Korea(SNAK) and the Korean Society for Marine Environmental Engineering including the chairman of the Korean Towing Tank Conference(KTTC). He retired from the Pohang University of Science and Technology in February 2006 and became professor Emeritus.

Professor Lee is survived by his wife, Dr. Sin Ai H. Lee, and two daughters, Jean Young L. Chae and Sue Lee Collins, both living in the States.

## 25<sup>th</sup> Conference Organisation



Preparation of the 25th ITTC Conference to be held in 2008 in Fukuoka is proceeding successfully by the Japan Towing Tank Committee (JTTC) led by Professor Takeshi Kinoshita and the local organizing committee in Fukuoka led by Professor Masashi Kashiwagi. All information on the Conference is being provided by the Research Institute for Applied Mechanics (RIAM), Kyushu University, and is available through the ITTC website (<http://itc.sname.org>).

As you may see from the website, the Conference will be held on September 14 through 20, 2008, at Fukuoka International Congress Center.

This Congress Center is built in 2003, located conveniently in the heart of Fukuoka City and close to Fukuoka International Airport.

As announced already, the symbol (logo) mark of the 25th ITTC Conference has been decided and is being used as a header for all publications relating to the 25th ITTC. The local organizing and executive committees are continuing the arrangement of the conference and decided

Hotel Nikko Fukuoka as the main hotel for accommodation and the conference banquet. Social events, registration fee, and others will be announced in due course through the website.

## News from the Executive Committee

The first meeting of the 25<sup>th</sup> ITTC Executive Committee was held in Rome on 19 September, 2006 after AC meeting. Following some comments on the proposed DRAFT of ITTC Rules at the AC meeting, it was confirmed that a revised version would be prepared for the next meeting. Budget and cost principle of the ITTC about IMO Related Issues was confirmed as follows, the cost for transportation and staying in a hotel should be covered by the ITTC, the ITTC representative(s) will participate in one IMO meeting per year, in general. However, the Executive Committee should make efforts to save money and should discuss and decide to what extent of IMO activities the ITTC be involved. Possibility of effective ITTC-ISSC link was discussed.

## News from the Advisory Council

The first meeting of the 25<sup>th</sup> ITTC Advisory Council was held in Rome on 18-19 September, 2006. 29 full and ex-officio members attended the meeting, which had a very full agenda, including such heavy items as the new ITTC Rules, relationship with IMO, and, not least, review of the progress reports from the technical committees. The AC has introduced a revised procedure for review of the work in the technical committees whereby the AC working groups thoroughly review the progress reports and summarise these for discussion by the audience. It is felt that this procedure has resulted in more focus on the work of the technical committees and more constructive feed-back to these from the AC.

The format of the progress reports from the technical committees was discussed and in general found acceptable, but the committees should be advised to follow this format and give sufficient information for the AC to be able to assess the progress.

It was further decided that an attempt shall be made to create an overview of existing benchmark data, which are available to the ITTC

community. This matter is addressed elsewhere in these News.

#### *Dates and venues for future meetings*

2007: Kyushu, Japan, September

2008: Copenhagen, Denmark, March



AC members gathered in Rome

## **News from Technical Committees**

### *Manoeuvring Committee*

At the second meeting (16-17 October 2006 at Shanghai Jiao Tong University, Shanghai, China), group leaders of the Maneuvering Committee (MC) Report Section and Quality Manual (QM) Procedures reported substantial progress following the MC Table of Contents and list of QM Procedures given in the MC contribution to *itc-news* No. 54. Section outlines with relevant references listed by sub-sections were presented and discussed. Section 6 Validation of Simulations & Benchmark Data: SIMMAN07 will include a sub-section describing large-scale maneuvering related projects such as HSSL, Virtue, Effort, CRS, Frydyn, and Fastpod. In Section 6, Maneuvering and Course Keeping in Waves the literature review will cover last ten years due both to the importance of this topic and that it has not previously been reported in depth. MC discussed the need for research on scale effects and ex

trapolation methods and desirability of a separate section covering this topic, but noted that this likely will not be possible due to lack of literature. The title of Section 8 was changed to Shallow and Confined Waters and Ship-Ship Interactions in view of the current interest in ship-ship interactions. MC discussed and planned improvements to all current QM Procedures. MC took the tasks and assigned responsibilities for developing two new QM Procedures for uncertainty analysis for (1) PMM captive model tests at least for bare hull condition with example based on results from three MC member institutes and (2) initiating procedure for free model tests. Responsibilities were also assigned for literature review and liaison with Azimuthing Podded Propulsion and Uncertainty Analysis Specialist Committees. Committee tasks, deadlines for progress reports, conclusions and recommendations, Committee Report, SIMMAN 2007 Workshop, and *itc news* were discussed along with a timetable for the work. Subsequent to the MC meeting on 18<sup>th</sup> of October Meeting #4 of the SIMMAN07 Executive and Organizing Committees was held also at Shanghai Jiao Tong University:

<http://www.simman2007.dk/>.

Dates and locations for future Committee meetings:

No. 3: 25-26 April 2007 Basin d'Essais des Carènes

No. 4: February 2008 HSVA or MARIN

#### *Resistance Committee*

The RC had his second meeting on the 16-17 September 2006, at the Grand Hotel Palazzo Carpegna, Rome (Italy), overlapped with the 26<sup>th</sup> Symposium on Naval Hydrodynamics. The meeting was hosted by Dr. Emilio F. Campana. All Section leaders presented summaries of the progress made, and the RC analysed the work to be done and fixed the time schedule.

The world-wide series for identify facility biases promoted by the RC is going on successfully. However, the circulation of the larger of the two models has encountered some problem with the custom in Shanghai, due to some missing document. The RC hopes to solve this problem and to successfully complete the campaign.

The third meeting of the RC committee is to take place on June 2007, in Valencia (Spain), hosted by the Dr Jesus Valle (CEHIPAR).

#### *Seakeeping Committee*

The second meeting of the 25<sup>th</sup> ITTC Seakeeping Committee was held at the Naval Surface Warfare Center, in the greater Washington, DC area (USA), on 2-3 October 2006. Progress on the nine formal tasks given to the Committee by the AC was discussed. There was additional useful discussion on the topics of benchmark data and uncertainty analysis. Following the request of the EC, communication with ISSC Loads committee has been established and it is anticipated that a joint session will be held in conjunction with the next Seakeeping Committee meeting in May 2007. Liaison with other pertinent ITTC committees (Resistance, OE, and Uncertainty) has begun. The next meeting of the 25<sup>th</sup> ITTC Seakeeping Committee is scheduled be held at the National Technical University of Athens, Greece 9-11 May 2007.

#### *Specialist Committee on Wake Fields*

The Specialist Committee on Wake Fields held its second meeting at INSEAN, Rome, on 14-15 September 2006. A review of the tasks, website, and progress in reviewing previous ITTC proceedings was held the first day. This review included clarification of tasks. Discussion of the detailed plans needed to perform each task and schedule occurred on the second day, as well as specific action items. The meeting was closed at 3:30 pm on 15 September with a summarization of the meeting and future plans.

The status on actions agreed at the first meeting was reviewed. Progress is satisfactory. Work on the four tasks given to the committee has been organised and a responsible person appointed to take the lead in the work for each task. Communication is organised through the website [crm.insean.it](http://crm.insean.it).

Future meetings planned for April 2007 at NMRI, Tokyo, and November 2007 at NSWC-CD, Washington.

#### *Specialist Committee on Cavitation*

The 25<sup>th</sup> ITTC Specialist Committee on Cavitation held their second meeting on September 15-16, 2006 in Wageningen, The Netherlands—following the International Symposium on Cavitation, CAV2006. At that time, only 22 organizations had responded to the committee's cavitation survey. An announcement was made during CAV2006 to obtain more feedback from the cavitation community, and the committee has extended the deadline for completion of the survey. During their meeting, the committee reviewed and discussed the four tasks to which they had been assigned by the 24<sup>th</sup> ITTC. The tasks that include computational aspects have an abundance of new papers to review. However, the task related to waterjet cavitation has very few papers, primarily due to proprietary nature of the industrial work on this subject. The committee will hold their next meeting in Göteborg, Sweden on April 23-24, 2007.



### *Specialist Committee on Powering Performance Prediction*

The second meeting of the specialist committee on powering performance committee was held at ITU in Istanbul on October 2-4.

In the meeting, the results of the questionnaire concerning powering performance model test practices were presented. We would like to thank the 43 member institutions that had replied to the questionnaire for their efforts. A summary of the findings will be given in our report, but some examples are given: 76% of the replies say that they use a form factor in the extrapolation process, 69% use the ITTC'57 correlation line, only 50% use some kind of scaling of the propeller open water characteristics, and no one uses a propulsion test only method as their standard for powering prediction model tests.

The scale effect of form factor has been a topic of interest to the committee. The committee has collected and analysed two previously unpublished geosim model test series, one combatant and one LPG carrier. We lack geosim data for full ships. If any of the member organisations are aware of such data, we would appreciate being noticed.

A key task of the committee is to utilise the database of 120 ships collected by the previous committee in the update of the procedure for prediction of powering performance. In the meeting it was agreed on how to proceed with this task: The single screw vessels in the dataset will be used to check how the correlation factors depend on choice of friction line, form factor and roughness allowance. The twin-screw datasets will be used to investigate the effects of appendage and wake scaling methods. Lastly, propulsion test only methods will be studied using the database.

The next meeting of the committee will be in Trondheim in September 2007.

### *Specialist Committee on Stability in Waves*

The Committee had the second meeting at the Hotel Gloria in Rio de Janeiro (Brazil), on the 29 September 2006. All members except for a corresponding member attended this meeting. The meeting was held following the STAB2006 conference in which committee members played major roles in conducting workshop sessions on relevant ITTC tasks, i.e. time-to-flood and parametric rolling.

All of the coordinators for the assigned tasks tabled their progress reports and future plans. The Committee discussed them and agreed the following:

#### 1. Prediction of parametric rolling

Dr. Ishida tabled a draft procedure for parametric rolling in head seas but the Committee decided that it should be included as part of the existing procedure on model test of intact stability to avoid redundancy. Other items that required further discussion were the wave height requirements, size of model basin, non-ergodicity etc. Regarding exiting experimental data for benchmarking, it was confirmed that no suitable data was currently available at this time. There is some possibility of suitable data if the ONR-sponsored experiments by Osaka University are successfully executed next year.

#### 2. Revision of the intact stability testing procedure

Professor Fan tabled a draft of revised procedure on model test of intact stability based on the outcomes from the survey of member organisations. The Committee agreed that deterministic breaking waves should be included and that carriage mounted fans can be recommended for wind testing. It was agreed that this procedure should be merged with the above procedure on parametric rolling and would be finalised at the next meeting.

#### 3. Time-to-Flood Prediction

Dr. de Kat reported that the first phase of the time-to-flood benchmark testing started with eight participants, i.e. National Technical University of Athens, Ship Stability Research Centre (SSRC), Helsinki University of Technology (HUT), Maritime Research Institute Netherlands, SSPA Sweden AB, Chalmers University, Instituto Superior Tecnico, Korean Research Institute of Ships and Ocean Engineering. A box-typed hull is to be used with experimental data supplied by the HUT. The first phase will be completed by Christmas 2006 and its results will be submitted to SLF 50 of the IMO via EC. The second

phase will be conducted for a passenger ship designed by SSRC for mutual comparison among the numerical codes.

4. Review of stability assessment techniques in the field of naval ships

Dr. Reed tabled a review report describing US Navy's risk-based intact stability criteria. Current approaches used by several other navies will be covered in the next version.

5. Review of stability assessment techniques in the field of non-naval ships

Professor Francescutto reviewed recent IMO activities relating to performance-based intact stability criteria. However it was reported that any finding coming from the EU-funded SAFEDOR project cannot be included until they are published.

6. Numerical prediction of damaged ship behaviour in waves

Professor Papanikolaou proposed a new benchmark testing plan on numerical prediction of damaged ship in waves with one of the models used in the last term. To avoid heavy loads on the participants for time-to-flood benchmarking study, this benchmark testing will be executed by the participants within the Committee this term.

Dr. de Kat and Professor Papanikolaou reported their attendance to SLF 49 of the IMO including the presentation of SLF 49/4/2 drafted by the Committee, which was favourably accepted at the IMO. The ITTC is now requested to submit a progress report of the time-to-flood benchmark study and its submission deadline for SLF50 is 23 February 2007.

The next meeting will be held in Europe during the summer 2007, to finalise the draft procedure on model tests of intact stability. The details will be decided later. The web site of the Committee is now available with following address:

[http://www.naoe.eng.osaka-u.ac.jp/itcc\\_stability/index.html](http://www.naoe.eng.osaka-u.ac.jp/itcc_stability/index.html)

### *Specialist Committee on Uncertainty Analysis*

The second meeting of the Uncertainty Analysis Committee was hosted by Baoshan Wu of the China Ship Scientific Research Center (CSSRC). The meeting was held at the CSSRC office in Shanghai on October 23 to 25, 2006, including a half day visit to the CSSRC facilities in Wuxi. The primary objective of the meeting was a review of the tasks assigned to the committee members.

Each committee member reviewed his assigned tasks from the previous meeting in France. ITTC 7.5-02-01-01, "Uncertainty Analysis in EFD," is the primary source for all uncertainty methods for ITTC, and it requires major revision to be consistent with the 1995 ISO Uncertainty Guide, the fundamental international guide on uncertainty. The Advisory Council (AC) has preferred that the committee continue with the AIAA Standard S-071A-1999, which was revised in 1999. The AIAA Standard was modified for consistency with the ISO but preferred to retain Bias and Precision terminology rather than adopt the Type A and B methodology of ISO. The terminology and implementation by the committee are still under discussion. The general procedures will be expanded to include uncertainty estimates for instrument calibration and outlier identification.

Development of new uncertainty procedures for data from LDV and PIV have already been initiated. Two other new procedures on free running model tests and captive model tests will be accomplished in coordination with other committees. A new uncertainty analysis procedure for full-scale testing is being recommended for a future ITTC conference since the committee already has too many tasks (10 tasks for 5 individuals). Since the last meeting in France, a new task has been assigned by the AC for support of the Powering Performance Prediction Committee in their update of prediction methods from an uncertainty point of view. Review and revision of existing procedures will also be coordinated with the other committees

The next meeting of the committee is scheduled for June 2007, in St. John's, Canada. Dr. Ahmed Derradji of the National Research Council will host the meeting. The primary purpose of the meeting will be to review draft procedures before final submission to the AC in August.

## ITTC Benchmark data

At the recent AC/EC meetings it was decided that a survey should be conducted on the availability of benchmark data, which could be of common interest to the ITTC community. Hence, all ITTC members are kindly requested to contribute to this survey with any information they may have on such data. It has not yet been decided how the data shall be organised, but information of interest at the present time could be origin of data (experimental or full scale), what sort of information (resistance, propulsion, manoeuvring, seakeeping, loads, cavitation, etc etc etc), in which form is the data found, availability, accessibility, owner of data, restrictions on use, and possible other information of interest in relation to the use of the data.

Please send any information on this to the ITTC secretary at [aad@force.dk](mailto:aad@force.dk).

## Membership Status

The attempt to update the ITTC membership list following the introduction of the membership fee continues. At present, the situation is as follows, summarised on a regional basis:

Region	Members	AC-members	Not yet resolved
Americas	11	3	7
C. Europe	14	7	1
East Asia	15	4	1
N. Europe	10	6	2
Pacific Is.	23	4	5
S. Europe	14	4	7
Total	87	28	23

## ITTC website

Updating of the ITTC website [itcc.sname.org](http://itcc.sname.org) continues. At the latest AC/EC meetings it was decided that scanning of the old Proceedings should include all issues from the first conference. The work has started and the Proceedings will be uploaded on the website as soon as the scanning has been done.

## SIMMAN 2007

The SIMMAN 2007 workshop has now been firmly planned to take place 15 to 17 October, 2007 in Copenhagen, Denmark. See the website [www.simman2007.dk](http://www.simman2007.dk) for more details, including the present status of the test plan.