

Stevens Student Section Update

By Anirudh Nair

The SNAME student section at Stevens Institute of Technology has engaged in many activities in the past year. One of which included, the opportunity for students to listen to some of the pioneering work and technical papers on planing hull hydrodynamics presented by the stalwarts in the field of naval architecture and hydrodynamics.

Dr. Daniel Savitsky, Emeritus Professor at Stevens, gave a presentation on “Hydrodynamic Design of Planing Hulls”. It provided the students with a nice opportunity to learn about the hydrodynamic characteristics of prismatic planing surfaces and empirical planing equations formulated by Savitsky and others. Dr. John P. Breslin, also an Emeritus Professor at Stevens, provided a different perspective on hydrodynamic analysis when he delivered a series of talks on “Facts and Fantasies of an Empirical Fit and Slender Body Theory Applied to a set of Model Experiments of Planing Prismatic Hulls” and “Professor Maruo’s Asymptotic Theory of Effects of Gravity on Dynamic Forces on Planing-Flat Surfaces of Low Aspect Ratio”. The final presentation of the year was given by Mr. Joseph G. Koelbel Jr. on “The Detail Design of Planing Hull Forms”, which covered many practical aspects of small craft design. In the presentation, Mr. Koelbel spoke of the details of evolution of a design through six successive stages each of which showed certain specific and planned improvement over its predecessors. The emphasis is on the transverse bottom shape and its influence on the performance particularly in rough water. Mr. Koelbel also briefed students on various career options and its requirements in general.

Two of our graduate students Mr. Soma Maraju and Mr. Michael DeLorme delivered a presentation on their research on developing a database backed design tool with the Atlantic Center for the Innovative Design and Control of Small Ships (ACCeSS) at the ONR NNR-NE technical review meeting in St. Louis in June. Ms. Lauren Balza, a student at Webb Institute gave a presentation on 3-D modeling of archival body plans, which she had undertaken as part of the same ACCeSS project at Stevens.

On the whole, it was a productive year and we had the opportunity to learn from and interact with the distinguished research scientists and industry representatives. This

year, in our first brief meeting, we selected new chairpersons, Mr. Anirudh Nair and Mr. Timothy Yen. We hope to hold more events this year and have more research scientists and industry representatives deliver talks on varied issues such as latest developments and technological innovations in the shipping industry, rules and safety issues concerning the operation of the vessels and their design. We would like to extend a warm invitation to any scientists and industry representatives who happen to be in the NY/NJ area to visit Stevens Institute of Technology and deliver talks in their area of expertise. (E-mail: anair1@stevens.edu). We also plan to attend several conferences this year, which will give us an opportunity to interact with people in the industry providing us with greater insight into the technological advancements and innovations made in the field of naval architecture and marine / ocean engineering.