

Three members of UCSD academic staff elected to the National Academy of Engineering

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Three members of the University of California, San Diego academic staff have been elected to the prestigious National Academy of Engineering, it has been announced in Washington, D.C. by academy president Courtland D. Perkins.

They are: Prof. John D. Isaacs, professor of oceanography at Scripps Institution of Oceanography and director of UC's Institute of Marine Resources (IMR); Dr. Stanford S. Penner, professor of engineering physics and head of the UC San Diego Energy Center, and Dr. Stephen O. Rice, research geophysicist in the Department of Applied Physics and Information Science.

The three were among 92 U.S. engineers and 20 foreign associates who were elected to the academy this year. They join Dr. Eric Reissner, professor of applied mechanics in the Department of Applied Mechanics and Engineering Sciences, who was elected to the academy last year and was the first faculty member from UC San Diego to be so honored.

Election to the academy is considered the highest professional distinction that can be conferred on an engineer and honors those who have made important contributions to engineering theory and practice or who have demonstrated unusual accomplishments in the pioneering of new and developing fields of technology.

Isaacs joined Scripps in 1948 and has served as professor of oceanography since 1961. The academy noted his "contributions to marine science and engineering, including deep-sea moorings and exploration instrumentation."

He was director of Scripps Marine Life Research Group from 1958 to 1974 and has been director of IMR since 1974. IMR is an interdisciplinary institute concerned with research, education, and public service in relation to man's uses of the resources of the sea.

Isaacs has conducted many far-reaching areas of research including studies of varved sediments, halophytes, the marine food web, the deep scattering layer, instruments, deep sea-floor photography, climatology, tornadoes, wave power, salinity gradient power, wave dissipation, harbors, sand transport, high-pressure effects, and applied marine and other developments.

He has been instrumental in the development of a number of new instruments particularly collectors; deep-moored, unmanned instrument stations; a wave-powered generator, and a floating dynamic breakwater system. He was elected to the National Academy of Sciences in 1974.

Penner came to UC San Diego in 1964 as professor and the first chairman of the Department of Aerospace and Mechanical Engineering Sciences after 14 years on the faculty of the California Institute of Technology. The National Academy of Engineering noted his "contributions to aerothermochemistry and its application to combustion theory, radiative heat transfer, and re-entry phenomena."

During 1963 Penner was on leave from Cal Tech at the Institute for Defense Analysis in Washington, D.C., where he was director of the Research and Engineering Division. In 1968 he was named director of the Institute for Pure and Applied Physical Sciences at UC San Diego, a post he held for three and one-half years. He served as vice chancellor-academic affairs for the San Diego campus during the 1968-69 academic year before returning to teaching and research.

Since 1972, Penner has been responsible for the development of energy-related programs and courses on the San Diego campus. He is a fellow of the American Academy of Arts and Sciences and a member of the Engineering Sciences Section of the International Academy of Astronautics. In 1975 Penner was honored with the G. Edward Pendray Award by the American Institute of Aeronautics and Astronautics "for outstanding contributions to the literature of aerothermochemistry and its application to combustion theory, radiative heat transfer and re-entry phenomena."

Rice came to the UC San Diego campus after serving for 42 years as a member of the technical staff at Bell Telephone Laboratories, Inc. The Academy noted his "contributions to the understanding of the theory of noise in communication systems."

Rice received a B.S. degree in electrical engineering at Oregon State College, Corvallis, in 1929 and did graduate work at Cal Tech the following year. In 1961 he received the D.Sc. (Hon.) degree from Oregon State College.

His work at Bell was concerned with theoretical problems related to electromagnetic wave propagation, signal modulation and noise. He is a member of the Society of Industrial and Applied Mathematics and Sigma Xi. He served as the Gordon McKay Visiting Lecturer at Harvard University in 1958 and received the Mervin J. Kelly Award from the Institute of Electrical and Electronics Engineers in 1965.

The National Academy of Engineering is a private organization established in 1964 to share in the responsibility given the National Academy of Sciences under its Congressional charter of 1863 to examine questions of science and technology at the request of the federal government. The election of new members brings the total membership and foreign associateship to 769 and 40, respectively.

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