

## Preface

It is our great pleasure to publish the first issue of the International Journal of Gas Turbine, Propulsion and Power Systems (JGPP). JGPP is a quarterly on-line journal issued by the Gas Turbine Society of Japan (GTSJ). The journal covers a wide range of research and development area concerning gas turbines, turbo-chargers, power unit for propulsion, and their maintenance and repair, as well as relevant technologies ranging from steam turbines, fuel cell or hybrid power systems, and so on. The journal will also contain review articles on, for instance, production and sales information, energy and environmental issues in Japan and Asian countries. Through the publication, we hope to establish and provide an international platform for information exchange in the field of energy and power engineering.

GTSJ was established in 1972. During 35 years since establishment, the most important international activity of GTSJ has been to hold the International Gas Turbine Congress (IGTC) every 4 years. IGTC is continuously providing opportunities to exchange the latest information of gas turbines and relating equipment technologies with participants from the world. JGPP intends to publish the papers presented in IGTC as journal papers. A recent activity in Asian countries is the Asian Congress on Gas Turbines (ACGT) launched in 2005. The papers in ACGT will also be welcome to JGPP.

We would be delighted if the International Journal of Gas Turbine, Propulsion and Power Systems could deliver valuable and interesting information to the worldwide community of power engineering. Your cooperation and contribution would be highly appreciated.

**Osamu Kawaguchi**

Editor-in-Chief, JGPP

**Haruo Yoshiki**

President, GTSJ

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## Prospectus

Gas turbine, which constitutes major portion of aeroengines and power plants, is undoubtedly important machinery in our highly industrialized societies. Because of worldwide concern about the degradation of global environment and increasing consumption rate of natural resources and energy, the demand for high temperature and high performance gas turbine is surging than ever before for the usage as a major component in highly efficient transportation, combined-cycle and co-generation power plants. Moreover, the advantage of gas turbine over any other power units in terms of fuel versatility and growth potential for much higher thermal efficiency guarantees expanding roles of the gas turbine in the propulsion and power sectors as highly efficient, low emission and environmentally-friendly power unit.

Technologies that support future growth of gas turbine include a number of disciplines such as

aerodynamics, heat transfer, combustion, material, structure, control, tribology, diagnostics and so forth. Researches in each of the disciplines are very active in Japan, and quite a few important papers have been presented and published in domestic or international conferences and journals. Besides, we are very proud of the important function that Gas Turbine Society of Japan (GTSJ) and its journal have been retaining since they started as the synthetic platform for gas turbine/turbocharger technologies through publishing a number of excellent gas turbine-related papers or hosting several international congresses in Japan, and quite recently in Korea. Unfortunately, however, most of the publications from GTSJ are issued in Japanese, thus it has been difficult for overseas researchers and engineers to recognize or reach any invaluable technological information cast from GTSJ. In particular, in consideration of rapidly increasing needs for gas turbines in Asian countries to meet their high demand for efficient power plants and transportation, it has become very important to make any activities in GTSJ more accessible from every Asian country.

After several-year serious discussion, we have decided that GTSJ should become more international platform on which the present and prospective members from all over the world, especially from Asian countries, easily exchange one another their knowledge, skills and thoughts with respect to gas turbine and the relevant technologies. Now we proudly announce that GTSJ will initiate the publication of an international and on-line journal from the beginning of 2007.

This brand-new journal, which is named International Journal of Gas Turbine, Propulsion and Power Systems (JGPP), will cover not only gas turbines for air, land and sea, turbo-chargers or power unit for propulsion but also any other relevant technologies ranging from steam turbine, utilities, repair and maintenance, operation up to fuel cell or hybrid power system. The journal will also compile review articles on interesting research topics or some statistics on the production and sales of gas turbine in Japan and Asian countries. The journal will be issued quarterly on line. By taking full advantage of internet-based technologies, along with the streamlined review routine, it will take less time for each of the submitted manuscripts before the publication, if there is no major correction.

Lastly, your cooperation and contribution to JGPP would be greatly appreciated.

## Instruction to Authors

Authors who want to submit a paper to JGPP, please follow the instruction on the web page:

<http://wwwsoc.nii.ac.jp/gtsj/jgpp/#paper>