

## 조류발전설비 설계 평가 및 인증시스템

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### Design Assessment and Certification Scheme of Tidal Energy Converters

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Researches and developments of tidal energy converters are close to commercialization stage. But, commercialization of tidal energy converters is not ready in Korea. In Europe, many experts of company, laboratory and public institution involved in marine energy are active for commercialization of marine energy converters in European Marine Energy Centre. Furthermore, in IEC/TC114, standardization of technical standards for assessment and certification of tidal energy converters of each country is under discussion. Therefore, we have to prepare for commercialization, standardization and entry into the overseas market. In this study, trends of commercialization and standardization of international markets of marine energy converters are investigated and certification schemes of overseas are analyzed. We expect that this study will make contribution to establish the foundation of commercialization of tidal energy converters.

**Key words** : Design assessment(설계평가), Certification scheme(인증시스템), European Marine Energy Centre(유럽 해양에너지센터), Standard(표준), Technical standard(기술기준)

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## 원자력 발전소의 온배수를 이용한 해양온도차 발전의 타당성 검토

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### OTEC System using the Condenser Effluent from Nuclear Power Plant a feasibility study

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Recently, environmental pollution and energy depletion problems have been issued over the world. For this reason, many renewable systems have been developing. Of these, the Ocean Thermal Energy Conservation(OTEC) is drawing attention as the upcoming alternative energy source. In this paper, the efficiency of each of OTEC which harness the effluent from nuclear power plant was analyzed by using computer calculation. The result, shows that Uljin Nuclear Power Plant is the best place geographically and the regenerative cycle is most outstanding performance cycle for OTEC. The difference of temperature between surface water and deep water temperature should be greater than 20°C in order to increase the efficiency

**Key words** : OTEC(해양온도차발전), Cycle(사이클), Condenser Effluent(온배수), Surface water(표층수)

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