







degree of experimental teaching, scientific research and engineering practice, we introduce the latest achievements and the latest technology into the experimental teaching, which raised the undergraduates' practical skills and engineering quality. Undergraduates of this major won numerous awards in Mechanical and Electrical Products Innovation Competition in Shandong. Undergraduates of this major were awarded numerous in Comprehensive Ability of Engineering Training Competition.

#### **4.3. Increasing the undergraduates' innovation practical ability and winning numerous awards in various competition**

Undergraduates' innovative, creative and understanding abilities have been increased. In the curriculum and graduation designs in recent years, the undergraduates' practical ability and designing thinking have a significant progress. Moreover, some undergraduates consulted the teachers some problems of engineering problems encountered. The training mode of "technological assistant" has subtly influenced students learning. Undergraduates in extracurricular technology series competitions have achieved remarkable results. In the recent three years, undergraduates of this major successively received five items national prizes and 22 items provincial awards in the "Challenge Cup" series competition. Undergraduates published 2 piece EI papers with the first author, and authorized 1 item national inventive patent and 9 items utility model patents. Undergraduates won 1 item the national special-class award, 1 item the national first award, 3 items the national third awards in the 11th "Challenge Cup" national university extracurricular technology competition.

## **5. Conclusion**

Through the scientific activity system, the training mode of technical assistants established the complete implementation process from the recruitment, selection, training, promotion, exit mechanism for the technical assistants. It is effective to solve the poor theoretical basis, the weak engineering practice ability and the scarce innovative ability, which enhanced the students' practical and innovative ability.

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