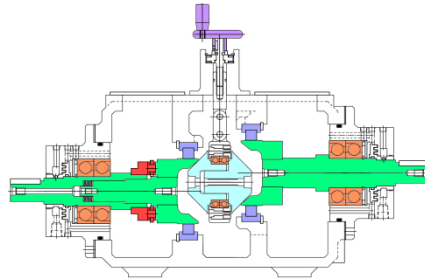


# Research and Development of Power Transmission

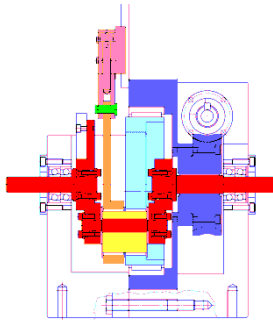
Assistant Professor Hidenori Komatsubara



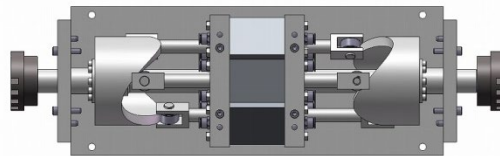
Marine Transmission



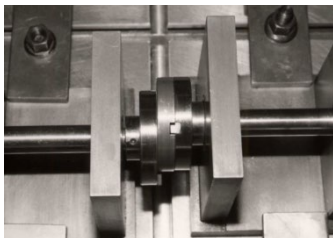
Continuously variable transmission (CTC-CVT)



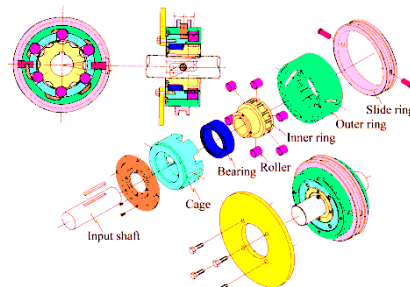
Variable compression ratio engine mechanism



Steam engine



Oldham coupling



Dog clutch

## Content:

Concave conical gear is a new type of conical gear. The contact between tooth surface of a pair of conical gears is point contact. Hence the tooth surface durability is generally small. Concave conical gear has higher tooth surface durability than the conventional conical gear. Our group developed the design and the production system of concave conical gear used for marine transmission.

Our group has developed a new CVT called “Cone to Cone Type CVT”. As for this new CVT, the structure is simple, and transfer efficiency is high. The purpose of this research aimed at practical use of CTC-CVT.

New VCR (Variable Compression Ratio) engine mechanism is multi link type, which is Six-Link mechanism of Double- crank type. We research analytically and experimentally basic characteristic of this mechanism for practical use gasoline engine, diesel engine, etc. In addition, our group has research and development about a Steam Engine, a Oldham coupling, a Dog clutch, etc.

## Appealing point:

We are passionate about manufacturing.

Yamagata University Graduate School of Science and Engineering  
Research Interest : Machine Element

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