



Memorandum of Understanding between

Koneru Lakshmaiah University, Vaddeswaram, India and The Szewalski Institute of Fluid Flow Machinery, Gdansk, Poland

Whereas Koneru Lakshmaiah University in India and The Szewalski Institute of Fluid Flow Machinery in Poland are engaged in advanced research of Turbomachinery in the areas of Structural and Fluid Dynamics, Lifting and Optimization with cooperation between their faculties for over three decades they wish to formalize this relation through this Memorandum of Understanding. This Memorandum envisages the following:

1. Exchange of faculties and students to carry out research in mutually beneficial areas, teaching for short and long term periods and taking courses of interest by students.
2. Propose projects for mutual benefit as already being practiced to funding agencies and carry out them jointly.
3. Both Institutions may voluntarily exchange academic materials of common interest, consisting in publications, curricular information and research reports. Neither institution is obliged to furnish specific or a predetermined quantity of documents to the other.
4. Each institution whenever finds it appropriate, may invite representatives from the partner University/ Institute to participate in conferences, colloquia, seminars, workshops and research programs.
5. Visits of academic staff may consist of:
 - Short - term periods for general information exchange and knowledge transfer meetings;
 - Long - term periods for joint research, supervision or participation in the teaching activity of the host University;
 - Long term visits will necessarily be subject to individual negotiation, taking into account the policies of each Institution/ University and the availability of funding and facilities involved.

The areas of research will be broadly in Structural, Rotor and Fluid Dynamics, Lifting and Optimization in different domains, as for example, Aircraft Engines and Structures, Rotor Dynamics, Damping, Lifting and Optimization, Condition Monitoring, Diagnostics etc., including laboratory experiments and tests. The collaboration can include failure investigations in either Poland or India as the case maybe.

This MoU provides for the visiting faculty and students to have their funding for international travel and the local stay and hospitality are provided by the respective counterparts as per the existing local norms befitting to the visitors.

The following research topics are proposed as guidance:

1. Bladed and Disk Vibrations
2. Rotor Dynamics
3. Damping evaluation
4. Flow interference between stationary and rotor rows in compressors and turbines
5. Flow Induced Noise
6. Flutter
7. Stress based life estimation
8. Strain based life estimation
9. Fracture Mechanics and Crack propagation
10. Weight optimization
11. Shape optimization for minimum stress and strain
12. Multi-objective and multi-physics optimization
13. On Line Remote Condition Monitoring
14. Development of special purpose codes
15. Laboratory test rig development and Testing

This MoU comes into effect from the date of signing; the faculty exchanges between the Universities will start from the next financial budget. This MoU will be initially in force for a period of three years. This can be extended with mutual concurrence.

Any additions or changes to the present Agreement must be mutually approved by both parties.

Any dispute arising from this Agreement shall first be discussed between the involved parties in order to find a satisfactory solution for all litigants.

Signed on this day 14th September 2011

On behalf of
Koneru Lakshmaiah University
Vaddeswaram, India

J. S. Rao

Professor J. S. Rao
Protem Chancellor

On behalf of
The Szewalski Institute of Fluid Flow Machinery
Gdansk, Polish Academy of Sciences, Poland
Z-ca DYREKTORA
d/s naukowych

Prof. dr. hab. inż. Jan Kiciński
Professor J. Kiciński
Scientific Director