

MEMORANDUM OF UNDERSTANDING

The Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand, India, represented by the Vice Chancellor Prof. Swatantra Kumar and Prof. Venko Beschkov on behalf of Institute of Chemical Engineering at the Bulgarian Academy of Sciences in Sofia, Bulgaria have agreed to start Bilateral Scientific Cooperation under the following conditions:

1. Prof. R. D. Kaushik, (Professor of Chemistry, Dean, Faculty of Engineering & Technology and Dean, Faculty of Ayurved & Medical Sciences, Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand, India) and Prof. A. K. Chopra, (Professor of Zoology & Environmental Science and the Registrar of Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand, India) will be the in-charge from Indian part. The Bulgarian team will be represented by Prof. Venko Beschkov from the Institute of Chemical Engineering, Bulgarian Academy of Science in Sofia, Bulgaria.
2. Some of the topics of common research will be (a) The utilization of renewable organic resources for the production of value –added products (b) Developing new methods for Estimation/ Determination and removal of hazardous chemicals in effluents of Industries.
3. The Bulgarian and Indian partners will undertake/ collaborate in the following investigations:
 - Development of new Industrial processes, novel equipments aiming for Chemical and biochemical technologies with scale-up as well as development of methods for optimized industrial design, control and renovation of chemical engineering systems.
 - Developing new methods for Estimation/ Determination and removal of hazardous chemicals like aromatic amines etc. in the waste water, effluents of Industries etc.
 - Utilization of effluents for Eco-friendly purpose.
 - Studying the Kinetics and Mechanism of the processes being designed and explored including the reactions involved in developing new Kinetic-spectrophotometric methods

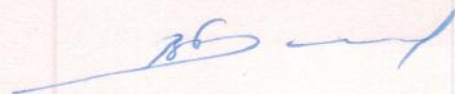

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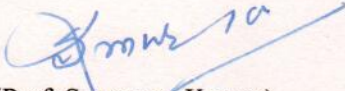
for microgram/ nanogram determination/ estimation and removal of hazardous chemicals like aromatic amines etc. in the waste water, effluents of Industries etc.

4. The Bi-lateral Co-operation will incorporate parallel and joint research, exchange and discussion on scientific results and information of their joint scientific publication.
5. Each partner will bear the Research expenses related to the work carried by them, from their own funds. Travel expenses will be covered by the partner to whom the visiting faculty members/ scientists belong. Living expenses at the rate of Indian Rs. 1000=00 or Bulgarian Leva 30 per day shall be provided by the host partner. Free Accommodation shall be provided to the visiting scientist by host partner in the University/ Institute Guest House.
6. In one financial year (1st April to 31st March), Two visits for the period of two weeks each for one faculty member/ scientist and one visit for a period of one month for one research student, are initially accepted and may be revised as per requirement from time to time.
7. Each partner will allocate certain funds to cover the expenses on the scientific reciprocal exchange visits. For the Bulgarian part, there will 5000 Euro and for the Indian part there will be Indian Rupees 3, 00, 000. For the Indian part, the funding will be made out of the Self Financing Budget of Gurukul Kangri Vishwavidyalaya, Haridwar.
8. Both parties will make their efforts to apply for funding of the visits of the present collaboration by the bi-lateral Bulgarian-Indian Scientific Cooperation.
9. The scientific results of practical value obtained from joint activities will be published and/or presented on scientific events with the mutual agreement (by email messages).
10. When procedures of IP-protection are required, the partners will apply jointly for patents in their respective countries, according to the local legalizations. The country benefits will also be shared equally and jointly.
11. After approval, the Joint Patents will be subject to equal rights of regulations.

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12. The two partners resolved to inform the other partner in case of possible patent, practical affiliation whenever it could be, including the financial consideration of application, including royalties in future.
13. The term of the MOU will be for the period of five years and can further be extended on behalf of The Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand, India and Institute of Chemical Engineering at the Bulgarian Academy of Science in Sofia, Bulgaria, after mutual agreements.


(Prof. Swatantra Kumar)

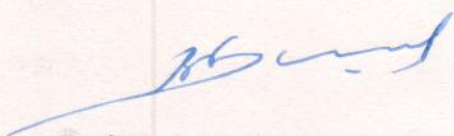
Vice-Chancellor

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(Prof. Venko N. Beschkov)

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Date :

February 14, 2012

Place : Haridwar -249404 (Uttarakhand), India