

Letter to Editor

Improvement of knowhow dissemination

This correspondence is in regard to the Letter of Tony Owen, which appeared in the July–August 1992 issue of *Robotica*. He pointed out that “Today, Engineering students are selected only for their scholastic achievement”.¹ This is, indeed, a bad fact of life, and I agree with most of the arguments of the above Letter. This factor probably leads to an education of production engineers who are **not** prepared to respond promptly to the test equipment and new technology needs of modern industry.

The same kind of problem is also encountered at the university staff level in France. For example, the appointments to assistant and professorial positions are sometimes decided by odd teams which are more specialized in staff-meetings, laws and administration protocols than in basic and applied research fields. This situation inhibits teaching/research competition, because the natural worldwide challenge then becomes reduced to a district closed-game in which the aim is to reach top levels, viz. the decision and power arenas. As a result, such a competition yields few clues of how to consider the knowhow dissemination problem.² In part, this situation can explain the fact why “Technology Transfer” remains a vague surviving concept, without any substantial impact on innovative industrial applications.

In addition, it can be observed that more and more university workers are constrained to consider academic research domains; this is probably due to the same fact. Since the design of apparatus and systems is time-consuming and often requires large budgets, most researchers who are not involved in administrative activities are finally reduced to mathematical applications and/or simulation tasks. Consequently, this corresponds to development work that can be easily done without money but, in general, it is useless for industry.

In these conditions, it is not astonishing to see that the number of conferences and *training sessions*, pertaining to

robots and manufacturing assembly are, *for the moment*, few in number, and those extant are academic in nature.

Contrary to these structural considerations, the industry’s challenge is probably the most exciting game which helps to find the true keys of success. This is generally done in terms of creativity and flexibility. Basically, the research of “the must” appears to be the goal of any country; people recognize more the competitiveness of engineers by the acronym “Made in U.K.” or “Made in France”, rather than in the set “Made in Taiwan”, for example. But curiously, there is no feedback about such facts at training or university levels. Thus at the beginning of the new Europe, Universities and Industries are forming separate worlds. This reveals a need for a modern cure in the most important areas.

The voice of practitioners could be useful to start protocols and to open new ways allowing for collective and efficient work in order to replace and/or mix together the usual recommendations of structured groups by/or with a new information source, closer to practice. That was the case of the Mechatronics project in Finland.³ As a result, economic policy which is related to the Industry/University interface could become clearer and well adapted to the present time.

References

1. T. Owen, “Letter to the Editor” *Robotica* **10**, Part 4, 287–288 (July–Aug., 1992).
2. C. Vibet, “Elements to teach robot control design”. (To appear in the Special Issue of *IEEE Trans. on Education*, Nov., 1992).
3. V. Salminen, “Editorial”, Special Issue, “Mechatronics—A key competence in Finland”. Edited by V. Salminen, *Mechatronics* **2**, No. 3, 219 (1992).

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