

# In Honour of Nina Thornhill

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**Abstract:** A walk down memory lane triggered by the upcoming retirement of Professor Nina Thornhill.

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## 1. INTRODUCTION

I am not certain when I met Nina Thornhill for the first time, but we have known each other for more than 20 years. In fact the last thing I did as a KTH professor before joining ABB was to give a pre-conference workshop on Control Performance Monitoring at the American Control Conference in Arlington 2001 together with Nina, and professors Sirish Shah and Biao Huang from University of Alberta, Canada (where Nina spent a sabbatical in 2001).

Before that Nina of course came to us at KTH to be part of Alexander Horch's thesis committee, which was also on the topic of Control Performance Assessment. Hence, it was through Control Performance Monitoring we first learnt of each other's work. I guess it is fair to say that we have both progressed since then, but very much in similar directions such that our research interests still overlap to a very large extent.

## 2. ABB CHAIR

As I know others are also discussing, Nina's early contacts with ABB subsequently led to her being appointed ABB and Royal Academy of Engineering chair of Process Automation at Imperial College London in 2007. I was not involved in setting this up, but since taking over as Program Manager for Control & Optimization in 2012 the ABB funding for this chair has been channelled through my budget. It still is now when we have formed ABB Future Labs, and I look forward to a 9<sup>th</sup> and final year of this funding in 2020.

I can honestly state that the trips to London for the Annual Review of our strategic alliance with Imperial – where Nina's chair plays a very

prominent part – has been some of the true highlights every year.

## 3. EU NETWORKS

Of course Nina's research has produced numerous results, some of which has gone into ABB products. Such as the plant disturbance analysis (PDA), a result from the first collaboration with ABB in Norway and Germany.

However, one of the key deliverables to ABB from Nina's work has been the people, primarily PhD students, she has helped to educate. Many of them we have managed to hire, but unfortunately not all.

In particular since 2010 she has coordinated three so-called Marie Skłodowska Curie networks:

- Real-Smart 2010-2014
- Energy SmartOps 2011-2015
- PRONTO 2016 – 2019

The latter two had as main purpose to train so-called early stage researchers (ESR), which means PhD students. In Energy SmartOps ABB had in total 4 ESR:s; two in Ladenburg, and one in Krakow and Oslo each. Now in PRONTO we had in the end 3 ESR:s; again two in Ladenburg and one in Krakow. On top of that ABB has hosted many ESR:s from other project partners for so-called secondments.

The first one, Real-Smart, had no ESR:s but focused on secondments between the different partners and had participation also from ABB in Baden, Switzerland. Here I know that Trond Haugen from ABB Norway spent 4 months at Imperial with Nina during which much of the strategy around Power Management for Oil & gas was developed.



**Figure 1.** Nina together with the ABB participants at the Annual Review meeting in September 2019.

#### 4. NPC AWARD

As a member of the Nordic Process Control Working Group I am very proud to have been part of making the decision to honour Nina Thornhill with the 2019 Nordic Process Control Award. She is the first female recipient of the award, and being an industrial member of the working group I see no one more deserving of this than Nina.

The award was presented to Nina at the NPC Workshop DTU in Lyngby outside Copenhagen, Denmark on 22 August, 2019. After the ceremony Nina gave an excellent award lecture by the title “Discovery through process data analytics”.



**Figure 2.** Nina receives the Nordic Process Control Award in August 2019.

#### 5. SUMMARY

It has been an absolute honour to collaborate with Nina Thornhill over these years. It is very rare that academic professors show such an in depth interest

for real industrial problems as she does. Her contact with ABB started with a secondment at ABB in Oslo in 2005, and during her time as ABB Chair she has spent two long sabbaticals (2012-13 and 2017-19) at ABB sharing her time between Krakow and Oslo. As far as I am aware of this makes her almost unique as a university professor.

I think I speak for everyone she has collaborated with at ABB that it has been an absolute pleasure. The competence, energy and efficiency she brings has always impressed me tremendously. In fact I cannot think of anyone who in comparison to her achievements is as low-key and humble as Nina Thornhill.

I wish her all the best for the years after retirement and hope that we may still see each other, for example at the annual Roger Sargent Lecture.