# Summer School on Rule-Based Machine Translation Final report

Francis M. Tyers, Mikel L. Forcada

#### **1** Overview

This event was a summer school on rule-based machine translation hosted at the Universitat d'Alacant. The school involved introducing students to four free/open-source rule-based machine translation platforms from different paradigms. There were lectures from core developers of major free/open-source rule-based MT platforms and project and practical work.

Lecturers were Prof. Mikel L. Forcada and Dr. Francis M. Tyers for Apertium; Drs. Gorka Labaka and Nora Aranberri for Matxin; Martin Popel for TectoMT and Dr. Krasimir Angelov and Inari Listenmaa for Grammatical Framework.

There were 36 total registered participants (registration was free). Of them, 21 attended the workshop (see below).

The website of the summer school, including the complete programme, is available here: http://xixona.dlsi.ua.es/rbmt-summer-school/2016/

#### 2 Travel grants

A total of ten travel grants were available. The application and selection procedure was as follows: Candidates submitted a project proposal before the deadline of the 2nd April, 2016. In the proposal they were asked to describe a project to undertake during the practical sessions of the school.

We received 18 applications for travel grants. Each of the lecturers ranked each of the proposals and the grants were awarded based on the highest ranked proposals. The criteria used for selecting the applications were:

- · Feasibility of the proposal
- Completeness of the application

In addition we took into account the machine translation system proposed to be worked on and the background of the applicant, in order to have a diverse range of participants.

### **3** Attendance

The school was attended by 21 students from Spain (5), Russia (4), Finland (2), India (2), and Turkey, France, Peru, Ireland, Italy, Uganda, Estonia, United Kingdom (1 each).

#### 4 Feedback

Figure 1 presents the results of an anonymous survey of the participants. Out of the 21 attendees, 14 responded. The feedback was generally positive.

The participants were asked the questions:

- 1. How satisfied were you with the school overall?
- 2. How satisfied were you with the lectures?
- 3. How satisfied were you with the practical sessions?
- 4. Did you enjoy the project work?
- 5. Would you repeat the experience?
- 6. Any other comments or suggestions?

In addition, we asked participants the question "Would you repeat the experience?", to which 100% of participants responded 'yes'.

The appendix contains the raw responses to the last question. They will be very useful for future editions of the school.

#### 5 **Projects**

Over thirty projects took place during the afternoon sessions, from preliminary work on Udmurt– Russian machine translation to development of Bhojpuri machine translation using TectoMT.

Figure 2 shows a picture of the list of projects in the whiteboard as it was being discussed on the first afternoon session (July 11).

We would like in particular highlight the work on development of an Italian–Sardinian machine translation on Apertium. This was started in this school by student Gianfranco Fronteddu. This was the first MT system for Sardinian and was later further developed <sup>1</sup>. The completed project received substantial media coverage in Sardinia.

#### 6 Finance

Table 1 contains a report of the expenses of the Summer Course.

Therefore, the course was run without significant deviation with respect to the budget.

Sponsorship requested from EAMT in the proposal was 7,440.00 EUR (although 8,240.00 EUR were received by mistake).

Sponsorship of the Escola Politècnica Superior and the Institut Universitari was through the waiving of the rental of the laboratory and by providing Internet access during the whole week for students not having access to *eduroam*.

Apertium as an organization sponsored the event with 1,069.67 EUR. Therefore, the Course will return the amount of 800.00 EUR to the EAMT.

<sup>&</sup>lt;sup>1</sup>https://svn.code.sf.net/p/apertium/svn/trunk/apertium-srd-ita

#### How satisfied were you with the school overall? (14 respostes)



How satisfied were you with the lectures? (14 respostes)



How satisfied were you with the practical sessions? (14 respostes)



Did you enjoy the project work? (14 respostes)



Figure 1: Responses from the feedback form

		PROJECT	HUMANS	
		FROJECI		
	* *	GF KURDISH	Menduh	
		GF LEXILAL SELECTION	Vin	W/
		MA MORPH	Tommi	Ŵ
PROJECT	IDEAS	KARELIAN MORPH MARI MORPH	Joonas	
		APODTIUM LEXICAL SECECITOR	Nikita John	
MATXIN DEP PARSOR		MATXIN RUS-ENG	Meghein	
GF 45 * Lexicons GF evaluation using * resources Plug externel morph and into GF MATXIN LINEARISATION.		APERTIUM LIVE/ENG APERTIUM UDM-RUS	Maša Bogdan	
		UKRAINIAN MORPH	Elena	
		BURIAT TREEBANK APERTIUM FIN-EST	Keit	
		* -> Cq , *= REDEXP	Inan	C
MAKE ACCOUNTS	sf net	ETAPS CG.	kira	(to
	gittaub com	PERCEPTRON TAGGER	Frankle ARTURO	
	9	SPA->SHP MATXIN GF RUNYAKOLE (NYN)	DAVID	
		A PERTIUM GLG-ENG		
		MATXIN DOMAN AD.		
		APERTIUM EPO -> FRA		1 .
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**Figure 2:** List of projects on the whiteboard following discussions on the first afternoon session (11th July).

Expense	Amount spent	Amount budgeted
Instructor travel and accomodation:	3,882.90 EUR	4,240.00 EUR
Francis Tyers, Inari Listenmaa,		
Krasimir Angelov, Gorka Labaka,		
Nora Aranberri, Martin Popel		
10 student bursaries (Vinit	4,000.00 EUR	4,000.00 EUR
Ravishankar, Kira Droganova,		
Nikita Medyankin, Memduh		
Gökırmak, Olatz Perez de		
Viñaspre, David Bamutura,		
Meghan Dowling, Joonas Kylmälä,		
Frankie Robertson, John Lyell,		
Maria Medvedeva) @ 400 EUR		
Travel bursary supplement for stu-	266.97 EUR	0.00 EUR
dent coming from India (Vinit Rav-		
ishankar)		
Consumables and school T-shirt	279.80 EUR	0.00 EUR
Total expenses	8.429,67 EUR	8,240.00 EUR

 Table 1: Expenses report

## 7 Concluding remarks

We are very happy with the organisation of the school.

# A Suggestions received

Here is a list of the (raw) suggestions we received through the form, many of which will be very useful when organising future editions of the school. Footnotes have been added where an explanation was needed on our part.

- Best summer school ever! I'm waiting eagerly for future ones.
- Very interesting!!
- Good luck!
- I think that there could have been an assignment/practice problems component as well in order to more familiarize ourselves with the other systems we weren't working with. The lectures were informative, but of course nothing beats hands-on practice. Other than that, I really enjoyed the entire program, and learned a lot.
- Maybe give suggestions about possible projects (especially for participants who are not speakers of minority languages), focusing either on programming or linguistics. Personally I did enjoy this summer school.
- For me It was a great experience. Very nice people and good lectures. Thanks.
- I would be glad to participate in EE-RMBT again :) Thanks!
- More information about accommodation. I think it would have been more enjoyable to have stayed in Alicante where most people were, I felt a little isolated in San Vincente.<sup>2</sup> Apart from that I had a great time and would definitely sign up again!
- About lecture and contact in general, one of the most difficult thing was certainly to follow and understand different English accents of the world.
- One interesting thing was to see there are different approach for free software machine translation.
- About the technical level, presentations were easy to follow for people already working on a particular software, but harder, and may be people would remember only a small part, for software that were unknown before. So, as the participants had different level of knowledge for each software at the beginning, the level was certainly well chosen.
- One thing that should be interesting would be to find somewhere all the presentation files used for lectures.<sup>3</sup>

<sup>&</sup>lt;sup>2</sup>Sant Vicent del Raspeig is the town where the university campus is.

<sup>&</sup>lt;sup>3</sup>Some of the presentations are actually available in the website.

- The question about practical sessions and project, may have been the same. Every participant seemed to have quickly an idea about what to work on, so practical sessions with a large autonomy was not a problem. But with a complete beginner, these session might have to be more directed.
- For the question Would you repeat the experience?, my answer would rather be why not. It was the first time I did this kind of session and for another one, that would depend on what more I could learn about this subject.