# Design and Implementation of Distributed Applications - 2020/2021

1st Year, 2	2nd	Seme	ster
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MEIC - Alameda Campus MEIC - Taguspark Campus METI



3rd Lab Session - Asynchron	ous Programming and	<b>Introduction to C# G-RPC</b>
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### **Support information:**

• Slides (pdf)

## A - Introduction to C# G-RPC

### A.2 - Chat

Implement a G-RPC based chat application with the following components:

- Server console application, *ChatServer*, which registers clients and sends messages;
- WindowForms cliente application, *ChatClient*, which sends messages to the server and displays the ongoing conversation.

The suggested client interface has:

- a text box to write the server port, and a button to connect to the server,
- a text box with the next message to be sent and a button to send it,
- a text box with the conversation so far.

#### Notes:

- See the sample G-RPC code.
- The new line change in Windows requires "\r\n" and not only "\n"!.
- For information on calling the Chat client GUI from the G-RPC server, see: https://docs.microsoft.com/en-us/dotnet/desktop/winforms/controls/how-to-make-thread-safe-calls-to-windows-forms-controls?view=netframeworkdesktop-4.8