# Article information:

(PDF) Real-Time Processing System for the JET Hard X-Ray and Gamma-Ray Profile Monitor Enhancement  
<https://www.researchgate.net/publication/235996709_Real-Time_Processing_System_for_the_JET_Hard_X-Ray_and_Gamma-Ray_Profile_Monitor_Enhancement>

# Article summary:

1. A new real-time processing system was developed and installed at JET for the gamma-ray and hard X-ray profile monitor diagnostic.

2. The system is connected to 19 CsI(Tl) photodiodes in order to obtain the line-integrated profiles of the gamma-ray and hard X-ray emissions.

3. The system includes reconfigurable digitizer modules with embedded field-programmable gate array (FPGA) devices capable of acquiring and simultaneously processing data in real-time from the 19 detectors.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides a detailed description of the development of a new real-time processing system for the gamma-ray and hard X-ray profile monitor diagnostic at JET, which is connected to 19 CsI(Tl) photodiodes in order to obtain the line-integrated profiles of the gamma-ray and hard X-ray emissions. The article is well written, providing clear information about the development process, as well as technical details about the hardware components used in this project. However, there are some potential biases that should be noted when assessing its trustworthiness and reliability.

First, it is important to note that this article was published by European Union, which could lead to partiality or one sided reporting on certain topics related to this project. Additionally, there are some unsupported claims made throughout the article that should be further explored before being accepted as fact. For example, it is stated that “the work developed allowed attaining two of the major milestones required by next fusion devices” without any evidence or explanation provided for this claim. Furthermore, there are some missing points of consideration that should be addressed when assessing this project such as potential risks associated with using FPGAs or possible alternatives that could have been used instead of ATCA digitizers.

In conclusion, while this article provides a detailed description of a new real time processing system for JET's gamma ray and hard X ray profile monitor diagnostic, there are some potential biases and unsupported claims that should be taken into account when assessing its trustworthiness and reliability.

# Topics for further research:

* FPGA risks
* Alternatives to ATCA digitizers
* Fusion device milestones
* CsI(Tl) photodiodes
* Gamma-ray and hard X-ray emissions
* Real-time processing systems

# Report location:

<https://www.fullpicture.app/item/9a2a152179a92176ae55da22001e8dcc>