**Mission:** to build a shape-shifting 128ch RF receiver array

We’re looking for a full-time postdoc that wants to make their name by building the first shape-shifting 128ch head coil for highly accelerated MRI applications. The project is sponsored by Siemens, and the successful candidate will work intimately with Siemens on this and related projects. The ideal candidate will have a demonstrated expertise in RF and electrical engineering, and electromagnetics. The candidate will work closely with a team that includes mechanical engineers and neuroscientists.

**Seeking: An ambitious RF engineering postdoc**

The main outcome of the project will be a 128-channel human head coil array ready to be implemented in clinical environment. It is a cross-disciplinary project and a collaboration between our lab and Siemens. The tasks and responsibilities include:

- Evaluate different coil array configurations and identify most promising for the target application
- Develop efficient coil decoupling strategies minimizing noise correlation between array elements
- Design and implement head coil array for 3T MRI (Prisma system)
- Coordinate efforts on mechanical and electrical safety tests and approval for clinical use
- Disseminate the project results to the public and exchange of knowledge with society
- Present advances, and assist with reports, manuscripts and grant applications.
- Collaborate with lab members, and Siemens, our industrial partner

**Education & Experience Requirements:**

Candidates should hold a Ph.D. or a similar degree with an academic level equivalent to a three-year Ph.D. in electrical engineering, electromagnetics, RF engineering. Preferably having experience in MR coil development. You should have demonstrated experience in:

- High frequency circuit design, fabrication and testing
- Use of VNAs, spectrum analyzers, noise figure meters and other measurement equipment in circuit testing
- High frequency circuit design software
- Imaging experiments using MRI scanners
- Knowledge dissemination through publishing in international journals

The position also requires that:

- You are driven by pushing boundaries
- You are motivated by both individual and team accomplishments
- You thrive on collaboration and teamwork
- You are flexible and independent

**Additional information**

**Status:** Full time. 1-year contract, with a possibility of renewal, available immediately

**Pay Scale:** $50,000 CAD

**Work Shift:** Monday to Friday 9-5

**Work Site:** Montreal General Hospital & Siemens

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