

EDISON

Electromagnetic Design of
flexible Sensors



Report 1. Tasks and Execution

BSc. Malgorzata Warecka
June 11, 2017



This work was supported by project EDISON - Electromagnetic Design of flexibleSensors, *The „EDISON” project is carried out within the TEAM-TECH programme programme of the Foundation for Polish Science co-financed by the European Union under the European Regional Development Fund.*

Revision	Date	Author(s)	Description
1.0	11.06.2017	M. Warecka	created

1 Tasks

1. Preparation of results base for cylindrical fiber
2. Preparation of results (guided modes) for:
 - an ellipse
 - a square
3. Preparation of results (complex modes) for:
 - an ellipse
 - a square
4. Preparation of results for ellipse with lossy material

2 Execution

The base for cylindrical fiber is done. The results for all shapes was prepared. All the results are consistent with the Mathieu function results. The results for guided modes are correct and for complex modes need to be verified. Now Dr Kowalczyk and Dr Lech are working on the complex modes results.

References

- [1] P. Kowalczyk, "Complex Root Finding Algorithm Based on Delaunay Triangulation", *ACM Trans. Math. Softw.*, vol. 41,no. 3, pp. 19:1-19:13, Jun. 2015.