

PRESS RELEASE

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42 Female Scientists in Book Portraits

›Frau N. Hofer‹ (Ms. N. Hofer) Or the Chance to Make the World a Little Bit More Livable Every Day

A book of success stories that inspires young women to take up mathematics, computer science, natural sciences and technology (STEM) with examples from science? That alone would not be enough for the Fraunhofer researchers Manja Mai-Ly Pfaff-Kastner, Esther Packullat, Dr. Isabel Michel, Lisa Martha Kunkel and Prof. Dr. Tanja Manuela Kneiske. »Forscherinnen im Fokus – Wir schaffen Veränderung« (Female Researchers in Focus – We Are Creating Change) wants more: to look at the world of artificial intelligence and simulation through the eyes of extraordinary female scientists and tell exciting, very personal stories in the process. ›Frau N. Hofer‹, as it is known for short, traces a variety of (life) paths in science and, in doing so, »incidentally« draws attention to fascinating opportunities for shaping the future, particularly in applied research.

In a series of diverse and entertaining portraits, the book focuses on women who are providing answers to the challenges of our time. The common thread is artificial intelligence – from the discovery of fundamental algorithms to the development of groundbreaking applications, all of which make an important contribution to society. These include climate protection, sustainable energy supply, health, medicine, disaster protection, mobility and transport, as well as machines and production.

The amazing women in this book are infectious in their curiosity and motivation. Above all, they remain authentic and honest. It is not only clear between the lines that the path to the goal often leads through unexpected detours, that some places want to be conquered, or how »woman« emerges strengthened from difficult situations. »You need stamina and a certain tolerance for frustration. Sometimes you make good progress, but there are also dry spells and phases when it's difficult. You just have to keep at it and not be intimidated,« advises Prof. Dr. Anita Schöbel, director of the Fraunhofer Institute for Industrial Mathematics ITWM, who is committed to promoting and motivating women.

Individual Stories, Individual Formats

The fictional character Ms. N. Hofer – an allusion to the Fraunhofer-Gesellschaft – guides readers through the book and tells individual stories of passion, determination and a thirst for knowledge. The editorial formats in the book are as unique as the

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female scientists themselves. Personal and scientific interest combine to create exciting stories on a double page each – as an interview, a dialog with team partners or in a few sentences that get to the heart of the matter. In many of the portraits, readers will think to themselves: this topic is perfect for exactly this scientist. Questions from young people are answered, career paths and funding opportunities within the Fraunhofer-Gesellschaft are highlighted, research approaches to artificial intelligence are explained – but first and foremost, the women have their say with their unique stories.

»Looking at the World With an Open Mind« Through Applied Research

Manja Mai-Ly Pfaff-Kastner, group manager in the field of digitalization in production at the Fraunhofer Institute for Machine Tools and Forming Technology IWU and one of the initiators of the book: »42 women from 22 Fraunhofer institutes talk about their scientific work and also very openly about themselves. They are colleagues from all levels of the hierarchy, scientists at the beginning of their careers as well as managers up to the level of institute directors. It is their book. But this book would not have been possible without the support and work of so many more great women – in the editorial team, the graphic design and the publishing support.« Pfaff-Kastner emphasizes: »This book shows »real« role models for female and male students. But not only. We want to promote STEM professions – explicitly for everyone in society. It starts with perception. And research that aims to make a lasting difference needs diversity at all levels.«

Ten women from the Fraunhofer ITWM and nine from the Fraunhofer IWU have been involved in the book project. »We at Fraunhofer can be real role models!« This is what they want to show, says Dr. Petra Gospodnetić, who works on surface inspection at the Fraunhofer ITWM, summing up her motivation for working on the book project.

Personal statements underscore the women's passion for research and teamwork. Based on their experience, the female scientists give advice for future female researchers: »Follow your talents, look at the world with an open mind. If you are looking for something you can make a difference in, and want to work with interesting, dedicated people, then applied research is for you!« advises Dr. Henrike Stephani, who came to mathematics from acting and now works at the Fraunhofer ITWM developing software for emergency coordination in crisis areas, among other things.

»Forscherinnen im Fokus – Wir schaffen Veränderung« is now available free of charge as an e-book here at [Fraunhofer Verlag](#) and as a print edition from the Fraunhofer Institutes. You are welcome to request your copy from us.



Fig. 1 Book cover »Forscherinnen im Fokus – Wir schaffen Veränderung« (Women Researchers in Focus – Creating Change) published by Fraunhofer Verlag
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Fig. 2 In the group photo from left to right: Maxi Grobis, Julia Rothe, Dr.-Ing. Verena Psyk, Lisa Martha Hecker, Manja Mai-Ly Pfaff-Kastner und Tina Abdolmohammadi (Fraunhofer IWU)
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Fig. 2 A book of success stories to inspire young women to take up mathematics, computer science, natural sciences and technology (STEM). The book is aimed primarily at female school pupils and college students.
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