



A few of the mentors and mentees from the Meet a Mentor program at ISSCC 2020.

took it from there. Some mentors and mentee pairs went out for a bite to eat, others grabbed a drink, and some attended sessions together. Mentors and mentees talked about everything and anything. No topics were off the

table. Mentees had the opportunity to seek their mentors' advice on academia versus industry, entrepreneurship, publications advice, and more. "We hope that such new program elements will make the ISSCC more welcoming

and enjoyable for next-generation IC designers," said Prof. Murmann. "Plus, it should also be a fun and rewarding experience for the mentors!"

—Abira Altvater

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## Eighth Edition of Sedra and Smith

When tasked with updating the world's most widely assigned textbook in electrical engineering (according to the Open Syllabus Project, <https://opensyllabus.org/>), one might be tempted to heed the adage "don't mess with success." However, in the fast-evolving field of electronics, a smarter strategy is "innovate or die," and that is the course taken by the authors of the new eighth edition of *Microelectronic Circuits*. This text has been known by generations of

students as Sedra and Smith after its coauthors, Dr. Adel S. Sedra of the University of Waterloo and Dr. Kenneth C. Smith of the University of Toronto. For the eighth edition, Dr. Sedra and Dr. Smith have added two new coauthors, Dr. Tony Chan Carusone of the University of Toronto and Dr. Vincent Gaudet of the University of Waterloo, who have worked alongside the original authors in preparing new print and online editions of this classic text. The authors have not only brought the content up to date to reflect current electronics practice; they've also developed an enhanced

ebook that supports modern teaching practices with digital resources integrated into the text itself.

"The guiding principle of this edition has been to make it easier to teach from and to learn from," said Dr. Sedra. This began with paring the content down to a more streamlined presentation. "We made surgical edits to every chapter of the book," added Dr. Chan Carusone, "and, by doing so, we were able to remove almost 200 pages, while at the same time actually adding new material like new examples and new emerging applications in electronics, which

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are so important in a fast-evolving field.” As Dr. Gaudet notes, “Without making huge fundamental changes, we’ve kept its modularity and preserved the ability for professors to work with the chapters they’ve been familiar with but that are now more streamlined.”

The biggest innovation of the eighth edition is the creation of an enhanced ebook, which embeds additional video and problem-solving resources and gives students more control over how the content is displayed. Popups are available by hovering over references to figures and equations; answers to exercises can be hidden so that students can try them out on their own. The videos provide instructors with an added tool to aid in flexible course delivery. As Dr. Chan Carusone pointed out, “By providing links between text

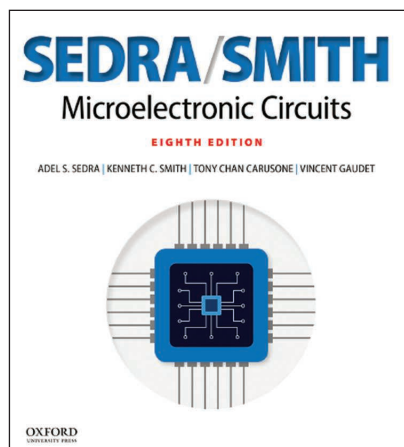
material and the videos at the appropriate places, we hope to make it easier to bridge the gap between theory and practice.”

The most striking feature of the enhanced ebook is the 41 problem-solving videos. Video production was overseen by Oxford University Press developmental editor Eric Sinkins, who notes, “the authors really embraced the opportunity to get in front of the camera, and what was really amazing was that they shot almost all of the videos in single takes with no interruptions. They’re the most professional author team I’ve ever worked with.” The videos are designed to provide students with the missing link between reading and problem solving. These videos take students step by step through an example problem from the text, so when they’re asked to do it on their own, they know exactly where to begin and how to proceed.

Also, in the enhanced ebook, the authors have created 150 additional

end-of-chapter problems for nine of the most frequently used chapters. These are designed to be a study aid for students and are presented with solutions in step-by-step detail. The examples, exercises, and homework problems in the text have also been thoroughly updated. According to Dr. Sedra, “The rapid reduction in device size has meant that the numbers that we use in examples, exercises, and problems have to be all revised.” Another innovation in the eighth edition is the designation of essential problems, which will be helpful for instructors looking for guidance when selecting sets of problems for students to solve.

The end result is a package of print and media resources surpassing anything these authors have provided in the past. Moreover, at just US\$60 (365-day access) for the enhanced ebook, this total package is far more affordable for students than print editions have ever been.



The cover of the eighth edition of *Microelectronic Circuits*. (Source: Yi Fan Danny Zhang.)

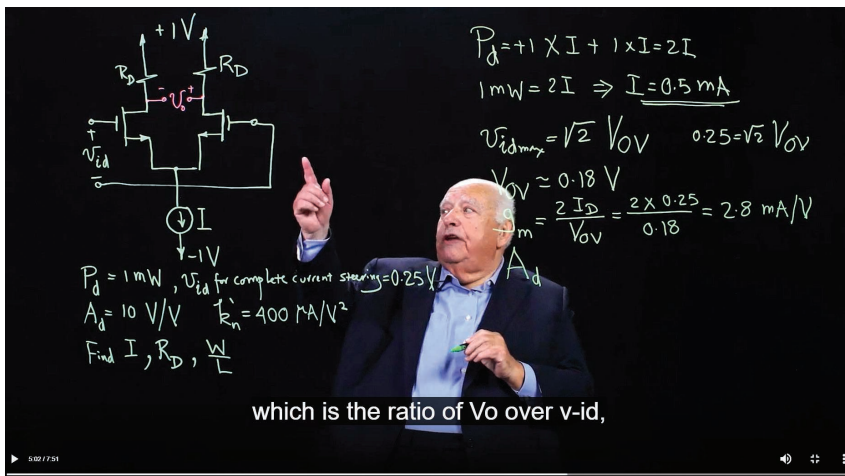


Dr. Adel S. Sedra. (Source: Yi Fan Danny Zhang.)



The Sedra and Smith author team. Authors Dr. Kenneth C. Smith (seated) and (standing, from left) Dr. Vincent Gaudet, Dr. Sedra, and Dr. Tony Chan Carusone. Oxford University Press editor Dan Sayre is holding a copy of the eighth edition. (Source: Yi Fan Danny Zhang.)





A video capture from the enhanced ebook. (Source: Yi Fan Danny Zhang.)

At the recent International Solid-State Circuits Conference, Oxford University Press hosted a reception for the authors, where they were joined by nearly 100 colleagues and students, past and present. Sedra and Smith has been the most popular choice for generations of microelectronics instructors and students. With all of the innovations added to the new eighth edition, the authors aim to make it the number one choice for generations to come.

—Daniel Sayre

## Region 10 Chapter Chairs Meeting at A-SSCC 2019

The IEEE Asian Solid-State Circuits Society Chapter chairs meeting was held on 5 November 2019 during the Asian Solid-State Circuits Conference (A-SSCC) in Macau, China. This annual event brings Asian Chapter chairs together with IEEE Solid-State Circuits Society (SSCS) Administrative Committee leadership to review recent Chapter activities and exchange ideas for future events.

The meeting was opened by Prof. Kenneth O, SSCS president, and Prof. Jan van der Spiegel, SSCS past president, who welcomed the participants and emphasized the importance of the local Chapters for the vitality and growth of our Society. Stefan Rusu, SSCS Chapters coordinator, presented an update on SSCS Chapters' growth, including a summary of the subsidies and awards available to support the Chapter activities. The Society now has 113 Chapters with several more in the pipeline (as of publication time). The Distinguished Lecturer (DL) program enables experts from industry



Participants of the Chapter chairs meeting held at A-SSCC 2019.

and academia to present the latest technology developments to the local Chapters.

Recent activities from the Japan, Kansai, Taipei, Tainan, Macau, and Honk Kong Chapters were reviewed. Highlights included DL visits, meetings with industry and academia, local technical conferences cosponsored by SSCS Chapters, and short courses organized by the local Chapters. For example, the Macau Chapter

organized the 2019 A-SSCC conference and hosted multiple DLs. The Taipei Chapter organized a two-day IC summer camp in August 2019 with 72 attendees. The Hong Kong Student Chapter, under the guidance of Prof. Patrick Yue (SSCS vice president of membership), held its own summer camp with multiple academic and industrial lectures.

—Stefan Rusu