

### Welcome to New Members

Material Advantage, IIT Kanpur extends a warm welcome to all the members who have joined the society and who have continued to be its part this year too. Its because of you all, that MA@IITK has won the **"Fall Membership Challenge"** under the category of most recruited members with ~ 70% growth in the total number of members. It is indeed a matter of great pride. Team MA@IITK has worked tirelessly, even during the situation of pandemic and has come up with many events such as talks, webinars, workshops and competitions at your ease of being at home. The chapter has earned a name on the global platform as well after receiving the **"Chapter of excellence Award"** from Material Advantage student Program.

Our association with our members is not only professional but we are like a small family who learns, teaches, and even socializes and celebrates together. Each member of the society contributes to expanding the realms on a broader platform. I thank team Material Advantage and all the members for their constant support and their continuous efforts in the growth of this society. We shall strive to bring laurels to IIT Kanpur Chapter and earn esteem for our Institution on a global platform with the name of MA@IITK embossed in gold!!

-Shruti Dubey,  
Chair MA@IITK

### Awards and Achievements

- Material Advantage @ IIT Kanpur has **won** the **"Chapter of Excellence Award"** for the year 2019-20 from ASM International. Chapter of Excellence award includes a certificate and prize money of "US\$450".
- MA @ IIT Kanpur has **won (again this year!)** Fall Membership Challenge of **"Most Student Recruited"** Award from ASM International with ~70% increment in the number of members. MA@IIT Kanpur will receive USD 1000 as monetary prize.
- Ms. Shruti Dubey **WON** the first virtual **MS&T Trivia** with a score of 430 points.
- Ms. Rubia Hassan has won the **THIRD Place** in the **SEM** category of **"Ceramographic competition"** 2020 organised by **ACerS** (American Ceramics Society)



**Material Advantage @ IIT Kanpur has won Chapter of Excellence Award 2019-20 from ASM International**

Chapter of Excellence award includes a certificate and prize money of "US\$450"

Globally, over 100 Material Advantage chapters compete for one "most outstanding" and five "chapter of excellence" annual awards

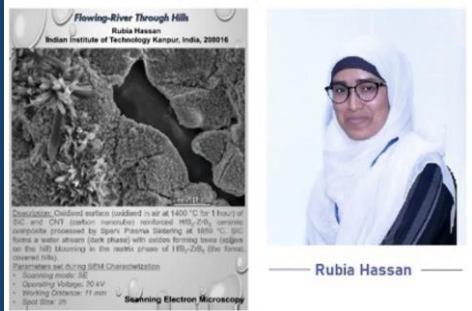
Such a feat is made possible by the executive committee of 2019-20

Rupesh Challe Chairperson	Shruti Dubey Chairperson	Reshma Sonkusare Secretary	Miral Verma Treasurer	Rubia Hassan Publicity Co-ordinator	Chinnayee Nayak Spokesperson & Student Advisor	Shyama Rajpal Web Coordinator
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**Ms. Shruti Dubey** (Ph.D., MSE Department) **WON** the first virtual MS&T Trivia with a score of 430 points. She has won a complimentary registration to MS&T 2021



**Ms. Rubia Hassan** (Ph.D., MSE Department) has won the **THIRD Place** in the SEM category of Ceramographic competition 2020 organised by ACerS



During the COVID-19 imposed lockdown, many virtual events including webinars, workshops etc were organised to engage our members and keep their spirits high.

08 July	Material Advantage @IIT Kanpur, organised an online article writing contest “Script IT”.
27-29 July	A 3 days <b>online training program for Scanning Electron Microscopy</b> was conducted where different aspects of SEM imaging have been discussed by <b>Prof. Krishanu Biswas (MSE, IITK)</b> . In addition, talks on sample preparation techniques and post image analysis were delivered by <b>Prof. Kantesh Balani (MSE, IITK)</b> and <b>Prof. Sandeep Sangal (MSE, IITK)</b> , respectively.
15 Aug	“Thoughts In Motion”, an Online presentation contest was organized by Material Advantage, IIT Kanpur Chapter.
28 Aug	MA@IITK organized the first talk of <b>Frontier lecture series</b> of the academic year 2020-2021 on August 28, 2020, at 4 pm. <b>Prof. Raj Pala (CHE, IITK)</b> delivered a lecture on the "Goodenough" Quantum Mechanics and a first-principle approach towards designing cathodes for Lithium ion batteries.
16 Sep	As a part of Fall Membership Challenge, MA@IITK organized an online session on “ <b>COVID: Calamity and Inventions</b> ”. The inventions discussed were <b>Oxygen Concentrator</b> by <b>Dr. S.K. Jha</b> , <b>Swasa N95 Face mask</b> by <b>Dr. Sandip Patil</b> and <b>Mobile masterJee</b> by <b>Dr. J.Ramkumar</b> .
18-22 Sep	MA@IITK associated with <b>Rajkiya Engineering College, Banda</b> for conduction of 5 day <b>Faculty Development Program</b> on <b>NOVEL MATERIALS</b> with speakers from various prestigious institute such as IIT Kanpur, IIT Bombay, IIT Roorkee, etc.
20-26 Sep	MA@IITK organized another fun event named “ <b>Locked up with hobbies</b> ” from September 20 to September 26, 2020, to provide an opportunity to the students to share their lockdown hobby stories
24 Sep	A session on <b>writing a research article along with a patent</b> was organized by MA@IITK on September 24, 2020 (afternoon Session). This e-session was conducted by <b>Mr. Ravi Pandey</b> , REO, IP & Tech Transfer, SIIC, IITK.
26-27 Sep	As a part of Material Advantage @IITK, membership drive, two-day <b>e-workshop on Ansys fluent</b> has been organized on 26-27 September 2020. This workshop was conducted by <b>Mr. Zeeshan Alam</b> (Senior Engineer, Reliance Industries Pvt. Ltd.)
26 Sep	<b>Meme Competition</b> was organized as a fun activity for IITK students. The event was conducted through Facebook at “ <b>Material Advantage IIT Kanpur Chapter</b> ” page from September 26 to October 03
28 Sep	<b>Micrography contest</b> was organized from September 28 to October 4, 2020, in which students participated from various departments like MSE, MSP, Chemical, Chemistry and Physics.
02 Oct	<b>Prof. Kantesh Balani</b> (Faculty Chair, Material Advantage, IITK Chapter) delivered an online talk on “ <b>How to write a research article</b> ”. This session was conducted on 02 October 2020.
03 Oct	<b>Prof. Gouthama</b> (MSE, IITK) delivered an online talk on “ <b>A case study on Rail degradation and failure</b> ” on Saturday, 3rd October 2020. Through this session Prof. Gouthama explained each and every aspect of rail degradation in detailed manner.
05 Oct	<b>Dr. Debdutt Patro</b> (Product Specialist, Marketing & Application, DUCOM) conducted the Session of <b>E-demonstration on Tribological Analysis &amp; Instruments</b> on October 05, 2020. This demonstration was conducted in association with DUCOM instruments.
10 Oct	MA@IITK conducted an interactive <b>panel discussion session on career opportunities</b> on October 10, 2020. The panelists were <b>Dr. J. Ramkumar</b> , <b>Dr. B.B. Agarwal</b> , <b>Dr. S.S. Singh</b> and <b>Mohd. Shafiq</b> . <b>Dr. Kantesh Balani</b> , Chapter Advisor, himself, was the moderator for this event.
12 Oct	Material Advantage @ IIT Kanpur initiated a workshop on LaTeX document writing by <b>Dr. Somnath Bhowmik</b> (MSE, IIT Kanpur) and <b>Mr. Pawan Tripathi</b> (PhD student, MSE, IITK).
10 Nov	A session was conducted on <b>possible questionnaire from Steel Companies</b> by <b>Dr. B.B. Agrawal</b> , Visiting Professor IIT Kanpur.
25-29 Nov	Material Advantage @ IIT Kanpur initiated a “ <b>one-on-one mock interview</b> ” session to help students for the placement session.



## International Events and Seminars

Ms. Shruti Dubey presented her research work as a poster in virtual MS&T 2020 conference held online in the duration of 2-6 November 2020. title of her presentation was "Effect of SiC and CNT on thermal stability of HfB<sub>2</sub>-ZrB<sub>2</sub> Based Ultra High Temperature Composites".



## Gallery

### Look Around-An Online Photography Competition



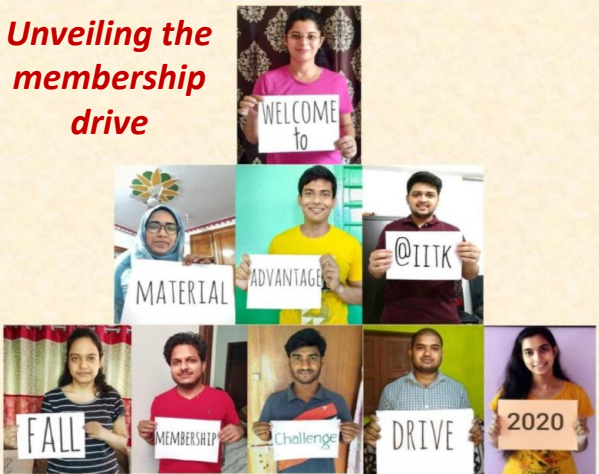
### Script It- An Online Article Writing Competition



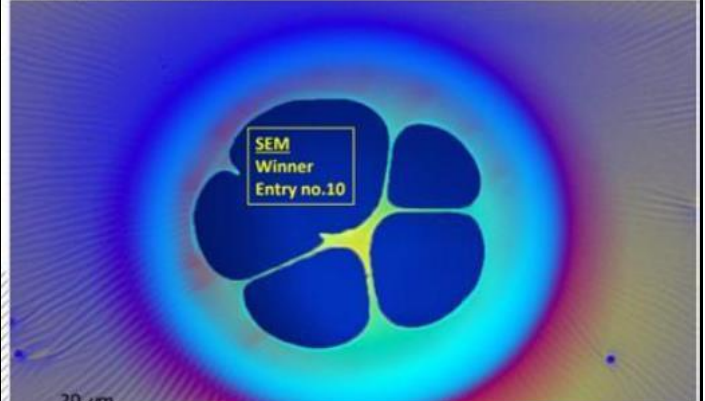
### Fall 2020 Membership Challenge Winners!

Most Students Recruited (\$1000 prize) – Indian Institute of Technology, Kanpur (70.8% growth)

### Unveiling the membership drive



In slippery system, interaction between the water drop and the solid surface determines the stability of the thin lubricating film, and for high energy surface, film is always unstable.



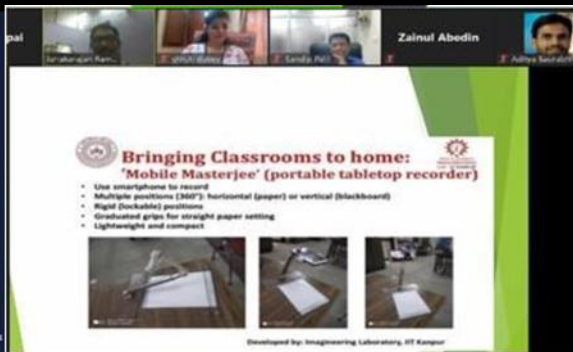
### Winning entry of SEM category for micrography Contest

### COVID-19: CALAMITY & INVENTIONS

Talks and interactive session on innovations in IITK during Pandemic

SEPT 16, 3 PM TO 5 PM  
PLATFORM: ZOOM

#### SPEAKERS

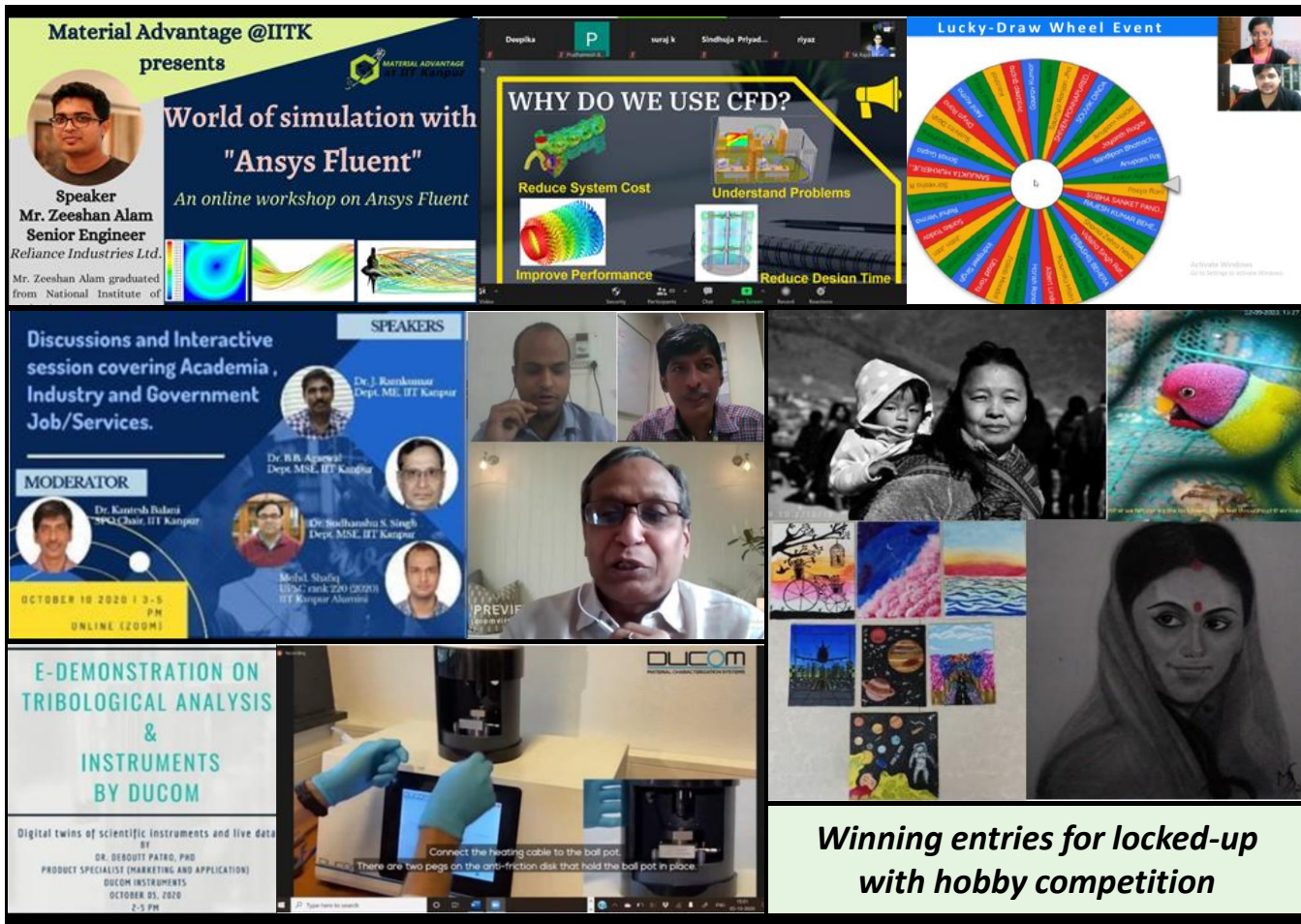


### How to Write a Paper

- Prepare your story
- Analyse your data (arguments)
- Present novel aspect(s) & justify
- Effective affirmation and discussion
- Right and convincing conclusion(s)



## Gallery



### Benefits to Student Members

- Students members get chance to meet highly esteemed professionals of their area through various societies i.e. AIST, ACerS, TMS etc.
- Student chapter gets 500 \$ for attending each conference.
- For more information regarding career and scholarships visit: <http://materialadvantage.org/>

### Team Material Advantage@ IITK



### Upcoming Events

- XRD Workshop- Jan 2021
- Talk from the "Understanding lecture series"- Jan 2021

### Become a Member

Annual membership fees is US\$15 (through MA @ IIT Kanpur)  
<http://materialadvantage.org/membership>

### Get in touch with us

MA@IIT Kanpur

Shruti Dubey  
[materialadvantage.iitk@gmail.com](mailto:materialadvantage.iitk@gmail.com)

<https://www.facebook.com/groups/328298820600281>