

Indian Institute of Technology Madras
Office of Alumni and Corporate Relations

Celebrating the Generosity of

Dr. Ashok and

Dr. Kamala Krishna





Director's Message

Prof. Kamakoti Veezhinathan

Director, IITM

Greetings!

IIT Madras continues to retain her top position for the eighth consecutive year, in the National Institute Ranking Framework, thanks to the world-class research of its faculty and students. The contribution and support of *Alumni and well-wishers like you* has crucially helped this standing and stature. Our achievements in research, education, innovation and entrepreneurship have also earned us the recognition of an 'Institute of Eminence' as well as the top position in the Atal Innovation Ranking from the Government of India

The institute is making an indelible mark with her 'research with impact' in several areas including quantum computing, drinking water technology, industrially relevant mathematical models for governance, rendering cancer-cure more effective. Our centres of excellence, the Center for Innovation, Nirmaan – the preincubator, the Incubation Cell, technology centres such as 'IITM-Pravartak' and others, work in unison for not just our nation's building, but societies world-wide. We aspire to be locally impactful and globally relevant through all these efforts.

Towards exploring new research frontiers, a Department of Medical Sciences and Technology has been launched in May 2023 to conjoin medicine and engineering. Similarly, a School of Sustainability was also created in October 2023 to research sustainable practices in the Global South. The campus is moving towards a 'carbon-net-zero' goal through water conservation by 100% recycling, efficient garbage disposal, and electrification of vehicles. The traditional education system is undergoing a paradigm shift, with our online Bachelor of Science programme in Data Sciences and the National Program of Technology Enhanced Learning, that have won Gold in the 'Lifelong Learning' category and Silver in the 'Best Online Program' category of the Wharton-QS Reimagine Education Awards 2022 respectively. IIT Madras is leading this revolution from the front.

Such achievements are not possible without the deep-rooted faith and support of alumni and well-wishers such as yourself. We are indebted to you for your generous, bountiful, and impactful contributions. On behalf of IIT Madras, I offer you our deepest gratitude for continuing to strengthen the Institute. Together with your support, we are confident of building an IIT Madras that is more inclusive, diverse, and enabled by an ecosystem to be nationally relevant and globally recognised. Thank you!

Dean's Message

Prof. Mahesh Panchagnula

Dean, Alumni & Corporate Relations, IITM



Greetings!

I express my heartfelt gratitude to you for your generous support to IIT Madras. We appreciate your passion in supporting the causes you do and I assure you that your contributions will be optimally utilized. This report has been compiled to convey how your largesse has touched lives and made a difference at IIT Madras. In keeping with the rapid, contemporary strides in science, technology we have set ambitious goals for ourselves - your continued enthusiasm and support will help us greatly in these endeavors.

IIT Madras is far more diverse in its set of pursuits, more green and more research-focused. And yet, it remains unchanged over these years, it is still the best Institute in the country, and attracts the best students that India has to offer to come and make a mark. I also cordially invite you to visit your campus to see for yourself, the impact of your contribution, and the growth and transformation the Institute has undergone over the years.

We can never express our gratitude enough for all that you have done - Thank You!



"GIVING IS NOT JUST ABOUT

MAKING A DONATION
IT'S ABOUT

MAKING A DIFFERENCE"



Dr. Ashok Krishna

Dr. Ashok Krishna, concluded his career as the Vice President of Technology at Chevron. Throughout his career, Dr. Krishna has consistently demonstrated leadership in applying principles of Chemical Engineering and technology to proficiently oversee diverse energy resources. He possesses a keen ability to discern technological concepts that lead to practical and successful business outcomes. Dr. Krishna has spearheaded the commercialization of technologies related to reforming, fluid catalytic cracking, hydrocracking and residuum processing. This expertise underscores his enduring impact as a leader in the effective management of energy resources.

Notably, his 21-month long PhD thesis in chemical reaction engineering has contributed significantly to undergraduate textbooks in the field. Dr. Krishna was instrumental in establishing the Energy Consortium at IITM. Post his retirement in 2018, he has remained engaged in advancing energy storage and waste plastics recycling initiatives, serving as the founder and chairman of THEMES, LLC.

Dr. Krishna has been involved in many public service and charitable activities, including United Way campaigns and individual contributions to various organizations. He is particularly well recognized for his mentoring activities, whether directed towards youth groups or professionals in the technology fields. In recognition of Dr. Krishna's academic excellence, innovation and industry leadership, IIT Madras conferred on him a Distinguished Alumnus Award in 2012.

Dr. Kamala Krishna wife of Dr. Ashok Krishna also an alumni of IITM has a profound affection for her alma mater. She is a skilled professional in energy technology with a robust background in heterogeneous catalysis, research and development (R&D), process optimization, troubleshooting. She is not only adept at navigating the intricacies of energy systems but also excels in driving innovation through collaborative teamwork.

The report will present a thorough assessment of the impact that your contributions have made towards the causes outlined below:



Dr. Kamala Krishna

- **Chevron Visiting Chair**
- M S Ananth Institute Chair
- Outstanding TA Awards in Dept of Chemical Engineering
- M/S Chevron Products Company Prize
- Saraswathi Keepitflowing
- 1983 Batch Coral Reunion P.V. Indiresan Faculty Externship Endowment
- 1983 Batch Pearl Reunion Prof. M. S. Ananth Endowment Fund
- COVID-19 Relief for India **√**)
- **Energy Consortium**

Chevron Visiting Chair



Prof. Sanat Kumar

Department of Chemical Engineering Columbia University Chevron visiting Chair Professor Chevron Chair was instituted in the department of Chemical Engineering by Dr. Ashok and Dr. Kamala Krishna's thoughtful contribution. This Chair will facilitate short-term visits by accomplished researchers in various disciplines. The Chair will provide for airfare, local hospitality, and an honorarium. The recipients of the Chair participate in various academic and research activities and interact with faculty and students in IIT Madras.

Prof. Sanat Kumar is Bykhovsky Professor of Chemical Engineering at Columbia University, New York, NY. He has a joint appointment at Brookhaven National Laboratory, Upton, NY. He earned his Chemical Engineering BTech degree from the Indian Institute of Technology, Madras ('81) followed by Master of Science ('84) and Doctor of Science ('87) degrees from the Massachusetts Institute of Technology, Cambridge, MA. Subsequently, he spent one year as a post-doctoral fellow at IBMs Almaden Research Center, San Jose, CA ('87-'88). His current research focuses on hybrid inorganic-organic composite materials, ranging from enunciating their fundamentals to their application is a variety of critical sustainability contexts (gas/water separations).

More recent interests are in polymer upcycling. In all cases a combination of theory, experiment and simulations are employed in the solution of these problems. He is the author of 300 publications, 3 patents and an edited book, is a fellow of the American Physical Society and is the Chevron visiting professor at the Indian Institute of Technology, Madras. He is the recipient of 2022 Polymer Physics Prize. He is the Associate Editor of Soft Matter and has had multiple leadership roles (Department Chair, APS Polymer Division Chair, and Polymer Physics Gordon conference chair among other) and has also held several other visiting professorships and editorial board membership.

M S Ananth Institute Chair

Academic Background:

- B.Tech (1982) from the Indian Institute of Technology Madras
- MS (1984) and Ph.D. (1987) from the Indian Institute of Technology Kanpur

Research Interests:

- Data Mining
- ✓ Process Design and Optimization
- Fault Detection and Diagnosis (FDD)
- System Identification



Prof. Shankar NarasimhanDepartment of Chemical Engineering

Prof. Shankar Narasimhan is well known for his work in the area of Data Reconciliation in which he has co-authored several important papers and a book that has received critical appreciation in India and abroad. In the area of process design, he has made important and seminal contributions in the design of sensor networks, heat exchanger networks, and water distribution networks. Based on his research work, he has developed several software packages for Indian industries (Data reconciliation for Engineers India Ltd., Leak detection in gas pipeline networks for GAIL, Model based control using artificial neural networks for Envision India). He is the co-founder of two companies Gyan Data Pvt. Ltd., and GITAA Pvt. Ltd., which provide solutions, products and training in data analytics, and machine learning for the manufacturing sector.

He received the EIL Research Award for 1994-95, the fellowship of the Indian National Academy of Engineers in 2012, and the CII Emerging Entrepreneur of the Year Award for Manufacturing in 2017.

Outstanding Teaching Assistant Awards in Dept of Chemical Engineering

Criteria: Selected TAs will be provided cash awards of Rs. 10,000, and will be enrolled in the TATP & TACP programs



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I am really happy about the TA award. It was the much needed acknowledgement for PhD candidates. I am grateful to all the alumni donors for making this possible.

- ANOOP P. PUSHKAR CH18D200

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I am glad to be presented with the Teaching Assistant (TA) award by the alumni for the first time. I thank the alumni for recognising the role of TA in bridging the gap between the teacher and the students.

- KONKATHI BALA RAJESH CH18D410







I am profoundly grateful for the Best TA award, sponsored by our esteemed alumni. My heartfelt thanks go out to the professors and the Chemical Engineering Department for their unwavering support and guidance. This recognition motivates me to excel further, and I deeply appreciate the opportunities and knowledge bestowed upon me. Lastly, I want to express my sincere appreciation to everyone who believed in my abilities and contributed to this achievement. Your support fuels my passion for teaching, and I am committed to continuing my best efforts in the future. Thank you once again for this incredible honor.

— JAIDEEP PRAKASH VAIDYA

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I am writing to express my sincere gratitude for being honored with the Teaching Assistant Excellence Award by the Department of Chemical Engineering at IIT Madras. I am truly humbled and honored to receive this recognition. Professors' approach to Structured Training, Clear Expectations, Mentorship and Guidance, Recognition and Appreciation, And support have encouraged me to effectively perform my Teaching Assistant duties. This recognition will undoubtedly motivate me to continue giving my best as a Teaching Assistant and contributing positively to the academic community at IIT Madras.

Once again, I thank you for this honor and the department's unwavering support in nurturing the next generation of engineers.

- VUPPANAPALLI CHAITANYA CH18D700



I want to express my appreciation for receiving the Outstanding Teaching Assistant (TA) Award sponsored by the Alumni. This recognition means a lot to me, and I'm truly honoured.

The Alumni Award initiative to recognize and reward excellence among teaching assistants is a remarkable gesture. It motivates individuals to strive for excellence and fosters a culture of appreciation and encouragement within our academic community. This award is not just a certificate; it represents the support and trust of our esteemed alumni. It signifies their belief in our potential to make a positive impact on the education of future generations. It's a reminder that our efforts as TAs are valued and essential in shaping the future of our students. This initiative encourages individuals to excel and einforces the idea that our collective efforts in education are vital and worth celebrating. It's a symbol of unity between current students and alums, emphasizing the importance of education in shaping a brighter future.

Thank you for this excellent opportunity.



- JAGADEESH KORUKONDA CH20D404



M/s Chevron Products Company Prize

M/s Chevron Products Company Institute Merit Prize is awarded to the student with best academic record in 1st and 2nd semesters of M.Tech. programme in the Chemical Engineering Department. A silver medal and cash award of Rs.10,000/- is presented to the student. So far 8 students have received this prize during Institute Day.

S.No	Name of the Student	Year Awarded
1	Marripelli Maniteja	2023
2	Jose Peter	2022
3	Sai Raghava Katturi	2021
4	Bhuvsmita Bhargava	2020
5	Faseeh K K	
6	Chadaram Sai Kishore	2019
7	Rinu Chacko	2018
8	Anbuchelvan Anamicca	2017
9	Vasudharini S V	2016
10	Aparna M	2015
11	Vaze Shruti Sanjay	
12	M P Resmi Suresh	2014
13	Amala M Mathai	2013

A Few Feedback from beneficiaries



I am deeply honoured and grateful to be the recipient of this award. I want to express my heartfelt thanks to the donor for their support and encouragement. This recognition means a lot to me and will undoubtedly inspire me to strive for excellence in all my future endeavours

- MARRIPELLI MANITEJA

I take this opportunity to express my sincere gratitude for this esteemed felicitation that you have bestowed upon me. When I started my journey at IIT Madras, I never imagined being presented with such a prestigious award at an important event like the Institute Day. I once again thank you for making this come true. I understand that I have a long way to go to deserve this prize truly, and I promise to strive harder in the future to uphold the trust you have placed in me

- JOSE PETER



Saraswathi - Keepitflowing

The renovation work in Saraswathi Hostel was started on 24.08.2022. Renovation work planned for Saraswathi are Facelifting of corridors, Facelifting of restrooms and External repair works has been completed and handed over.



Before renovation





After renovation

Staircase renovation: Providing stainless steel handrails

Before renovation





After renovation

External renovation work



Restroom renovation:

During renovation













After renovation

1983 Batch Coral Reunion-P.V. Indiresan Faculty Externship Endowment

The faculty externship program is for the faculty who travel abroad for short durations to universities across the globe mainly for research purpose. 1983 batch named the faculty externship program in the memory of their Director Prof. P. V. Indiresan.



Dr. P.V. IndiresanFormer Director, IIT Madras

He started his teaching career in the University of Roorkee (it is now an IIT) and shifted to IIT Delhi soon after it was formed in 1961. He was later appointed Director of IIT Madras in 1978, and left an indelible mark on that Institute. He returned to Delhi after completing his term there, and then took to serious writing. In his middle age, he learnt a lot about Techno-Economics and was appointed on several committees constituted by the government as an advisor.

During his long and illustrious career, he received several honours and awards. Prof. Indiresan was awarded the IEEE honorary membership for 1998. He was also conferred Padma Bhushan by the President of India in the year 2000. He carried these awards lightly on his shoulders, and never made a mention of them. Humility was a hallmark of his persona.

Academic Background:

- Evidence shows that research developed in collaboration with top global institutions have a 50% higher citation rate.
- A vital intention of this program is to enable a faculty member's first visit to the world's best research institutions abroad.
- This will create a virtuous cycle by increasing collaboration, improving the quality of research. This will improve the reputation of our faculty and institute, paving the way to attract new faculty and institutions interested in collaborating with IIT Madras in the future.

Research Interests:

- This program will enable young faculty members of IIT Madras per year to spend between four to eight weeks abroad at a world-class institution.
- IIT Madras will define the requirements of the faculty applicant and the selection process and report on results relating to ongoing collaboration, research, publications, citations, etc.

Support provided to Faculty:

- This program will support expenses related to local hospitality as well as some local travel of the faculty.
- The cost of an externship per faculty will be between USD 6K to USD 8K depending upon the grant requested by the faculty.

Selection Process for Faculty:

- The primary criterion for the selection process would be the merits of the applicant's research proposal.
- This Faculty Externship is currently being opened for all full-time Assistant Professors of IIT Madras.
- The steering committee will do the selection process in selecting and awarding the faculty with Faculty Externship every year, and they unanimously select a professor each year.

List of Beneficiaries:



Prof. Swapna Singha Rabha
Department of Chemical
Engineering
Beneficiary of the year 2023

Planning to visit in 2024 – She will collaborate with Helmholtz Zentrum Dresden Rossendorf (HZDR), Germany, who have the expertise in advanced imaging techniques, and strengthen her research on latest developments in CO2 capture



Prof. Chandan Sarangi
Department of Civil
Engineering
Beneficiary of the year 2023

Planning to visit in 2024 - Finland to analyse Himalayan aerosol and aerosol-in-snow samples via advanced instrumentations for understanding the mixing state of single particles in the aerosol mixture.



Prof. V. Srinivasa
Chakravarthy
Department of Biotechnology
Beneficiary of the year 2020



Prof. Himanshu Sinha
Department of
Biotechnology
Beneficiary of the year
2019

1983 Batch Pearl Reunion - Prof. M. S. Ananth Endowment Fund

This Endowment Fund was established to honor Prof. M. S. Ananth, who served as the Director of IIT Madras from 2001 to 2011. He was well-known for his contributions to science and teaching, as well as his tireless efforts to develop higher education and research in India.

The following activities are supported through this endowment fund:

- To support socially relevant projects.
- To support the educational needs of the children of staff members of self-help organizations who work on the IITM campus.

Socially Relevant Projects

Total no of projects accomplished over the years.

6 2019 2020 2021 2022

In 2022 alone, the institute successfully executed four impactful projects.



Prof. Nikhil Bugalia Department of Civil Engineering

Project Name

Construction and Demolition (C&D) Waste Management and the Role of the Informal Unorganized Sector in India: Case of New Delhi



Prof. Madhu Mutyam Department of Civil Engineering

Project Name

Tracking Beehive Health Using IoT Technology



Prof. Sreeram K. Kalpathy Department of Metallurgical and Materials Engineering

Project Name

Farmer-friendly, point-ofuse, portable heavy metal sensors with cell phone interface: A new technical aid for the agricultural sector



Prof. Rayala Suresh Kumar Department of Biotechnology

Project Name

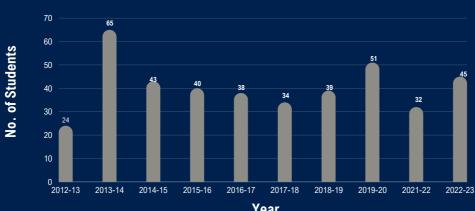
Community Screening of "Kasimedu fisherwomen" for cervical cancer using a self-sampling kit and an indigenous innovative detection device

Analysing water quality and heavy metal presence in water samples collected from several temple tanks in Rameswaram, Tamil Nadu using the ICP-OES facility at SAIF- IIT Madras. The project is aimed at helping farmers and agricultural cooperatives to decide on soil quality by measuring soil salinity and heavy metal presence detection so that they can sow crops in the right location and maximise crop yields.

Support to children of staff members of the self-help organization who work in IITM:

The below graph depicts the number of students who have reaped the benefits.

Statistics from 2012 - 23



Gratitude Note from some of the beneficiaries:





Respected Mam

I am Kasthikeyan. R Son of Abirani. You's gave
a reasily fees that is Help foor my Studies. So I was
able to consentorate with my Studies Perfectly. It'd also fees
Is not pending so Thanku foor your help very much. and also
I am very happy. and thanku foor all support.

Thank is you

99

R Karthikeyan

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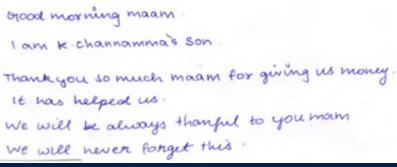
சார் ! சூக்யா எடுகி அகிலிப்பது என்னலைற்றால் என்றையை பக்கி அர்மினா இ படிக்கு அகிறேனர் என்றையை மகள் அர்மினா இ படிக்கு அகிறைன் நால்கள் கலிப்பட்டு படிக்க கைக்கிள் தோம் அக்கால் எல் கடுக்கு பளினி படிப்பற்ற பில் எகவுத்ததற்ற விக்க கள்றிகுமா. அப்படிக்கி அப்படிக்கி அப்படிக்கி



R. KARTHIKEYAN

Nitish and Sharmila







K. Dhanush Kumar

Respected modern

My Self K. Vinushya Pam Studying 10th Standard.

My mother name K. Stanthi. I wish to thank you for

the suppost and help my education. I wish to largery

my heartfalt greatitude for your help in

financing my studies.



K. Vinushiya

COVID-19 Relief for India

The COVID-19 pandemic became an emerging global health crisis and required the best of our efforts to overcome it. The sudden outbreak of pandemic had already created an enormous medical and financial burden shattering many lives.

The second wave of COVID-19 immensely affected the public's mental health and well-being in a variety of ways, including isolation and loneliness, job loss and financial instability, and illness and grief. Many organizations, institutions, and individuals came forward to support the nation both financially and socially.

IIT Madras launched a campaign to raise funds for supporting various causes. The Institute exceeded its goal of raising \$1 million in 48 hours. Overall IIT Madras Alumni and other well-wishers have come together and raised more than \$2 million.

Below are the causes for which the funds were used:

- Purchase of Oxygen cylinders, BiPAP machines, Injections, and Medicines
- · Healthy meals for students who were stranded in the institute during covid.
- Financial help to more than 150 Ph.D. scholars to pursue their research without any constraints.



Glimpses of the contributions:



IIT Madras handed over 200 oxygen concentrators to the Government of Tamil Nadu



Donated BiPAP units, Injections and medicines



Contributed 200 oxygen concentrators (5 litres each) to the Government of Telangana and 200 oxygen concentrators (10 litres each) to the Government of Karnataka.







Provided healthy meals to students who were stranded during covid pandemic with the help of a nutritionist. Arrangements were made to serve paneer, banana, and eggs as optional extras.

Contributed 1000 units of covid medicines to Sri Venkateswara Institute of Medical Science (SVIMS), Chittoor.

• Financial support was provided to Ph.D. scholars as stipend. This helped them to carry out their research without hindrance.

Gratitude notes from some of the Ph.D. scholars



Ajay A P

"I wish to thank all the donors from the bottom of my heart. The relief provided helped me look after my family during that nightmare phase and thereby focus on my research more"



Sunny Sharma

"I am really appreciative of the assistance received from my alumni during my most difficult time. I'm hoping that someday I'll be in a position to help out my fellow students"



Bhadra Hrishikesh

"The pandemic was a tough period for all of us. And it is very stressful for scholars especially when they are on the final stage and the stipend period has ended. I am very grateful to the alumni and non alumni members who contributed in supporting scholars like me. You are inspiration to us by making us understand the importance of giving back to our community"



Dipanjan Majumdar

"I would like to express my sincere gratitude to all the alumni and non-alumni donors for generously donating towards the cause of Covid-19 relief with which we were supported with our stipend. I wish to prolong my appreciation to all who worked behind to make the entire process work smoothly. The financial support from you helped me greatly"

Energy Consortium

India's energy challenges transcend national borders, necessitating technological and engineering solutions. Theotential global impact of scalable technology solutions in India underscores the importance of industry-academia partnerships, which provide the impetus and influence needed for the development of such technologies. The Energy Consortium at IIT Madras serves as a comprehensive umbrella, uniting various energy-related initiatives to address these challenges collectively.

Energy Summit 2023

The energy summit 2023 was carried out from December 5th to 8th in the office of Industrial Consultancy and Sponsored Research (ICSR), IIT Madras showcasing the emerging technologies and addressing actions on climate changes in India and world. The summit included both national and international delegates like Sarah Kirlew from Australian government, Bhima Sastri from US department of energy, Hariprasad J. Subramani from Chevron Tech Ventures, Francois Aguey-Zinsou from University of Sydney,





Energy Summit 2023

Pandiarajan Palanichamy from Infosys, Subramanian Chidambaran from Cummins India, Vikrant Urade from Shell Global Solutions, K Ramesha from CSIR and other notable personalities. The key note speakers were Ken Watanabe from Kyushu University, Raghunathan Rengasamy and Rajnish Kumar from IIT Madras, Vishnu Venugopalan from Guidance Tamil Nadu, Ajay Patel from Cummins India and Chandu Visweswariah from CURE100 and Croton100 on the themes of energy efficiency, energy management and modelling, digital transformation, carbon markets, energy economy and climate finance, energy storage, electrolysis technology, green hydrogen, power conversion system, microgrids and power electronics. The summit emphasized on providing solutions for climate change and sustainability goals, addressing the energy security concerns, developing policies on energy affairs, introduction and application of innovative ideas, technologies and research to tackle specific missions and to build investment strategies.

Talks from academia on advanced technical aspects of energy conservation was another important aspect of the summit and the speakers around the world included Neha Mehta from University of Birmingham, Olubukola Tokede from Deakin University, Anastasia Globa from University of Sydney, Jay Wadhawan University of Hull, Mohamad Abdel-Aal University of Exeter, Pritam Mukhopadhyay from Jawaharlal Nehru University and much more. The summit also promoted the ideas of international cooperation, energy transition, public awareness and engagement, networking and collaboration, Resilience and Adaptation, explaining global energy trends and energy access. The summit was well organized and added significant value by providing solutions for many environmental concerns that will improve the global standard of living.

For more details



Dr. Ashok and Dr. Kamala Krishna



Thank you for your sustained generosity to IIT Madras over the years. Contributors such as yourself enable our students and Professors to dream big and work towards a better and brighter future. We hope you are proud of your alma mater and how it has remained steadfastly committed to academic and research excellence during and after your time here. You and your family have been instrumental in facilitating this significant growth.

Our efforts to nurture the culture of academic excellence that is the hallmark of IIT Madras - quality education, cutting-edge research, and unfettered creativity - shall continue. We are privileged and humbled to have you and your family walking with us along this trail. We wish you and your family the best always in all walks of life!



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